

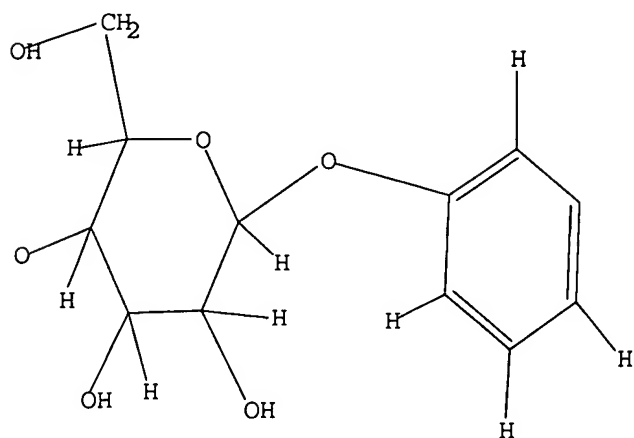
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L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

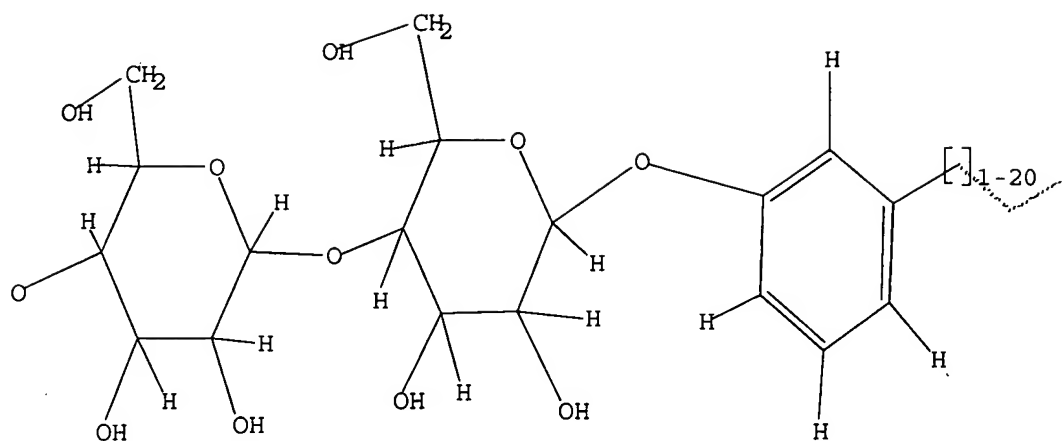
L1 STR



G1 Ph,o-C6H4,m-C6H4,p-C6H4

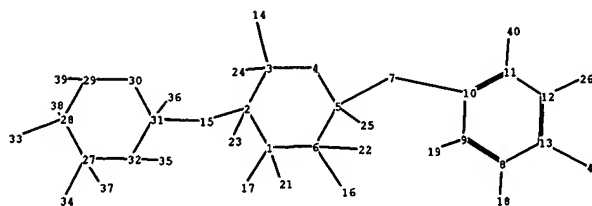
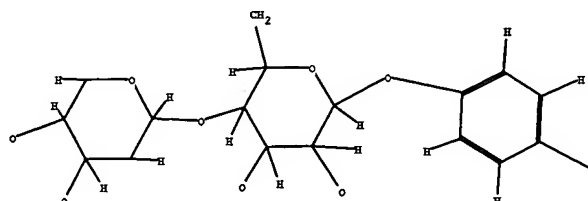
Structure attributes must be viewed using STN Express query preparation.

=> d 123  
 L23 HAS NO ANSWERS  
 L23 STR



G1 Ph,o-C<sub>6</sub>H<sub>4</sub>,m-C<sub>6</sub>H<sub>4</sub>,p-C<sub>6</sub>H<sub>4</sub>

Structure attributes must be viewed using STN Express query preparation.



chain nodes :

7 14 15 16 17 18 19 21 22 23 24 25 26 33 34 35 36 37 38 39 40 41

ring nodes :

1 2 3 4 5 6 8 9 10 11 12 13 27 28 29 30 31 32

chain bonds :

1-17 1-21 2-15 2-23 3-14 3-24 5-7 5-25 6-16 6-22 7-10 8-18 9-19 11-40 12-26  
13-41 15-31 27-34 27-37 28-33 28-38 29-39 31-36 32-35

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-13 9-10 10-11 11-12 12-13 27-28 27-32 28-29  
29-30 30-31 31-32

exact/norm bonds :

1-2 1-6 1-17 2-3 2-15 3-4 4-5 5-6 5-7 6-16 7-10 15-31 27-28 27-32 27-34  
28-29 28-33 29-30 30-31 31-32

exact bonds :

1-21 2-23 3-14 3-24 5-25 6-22 8-18 9-19 11-40 12-26 13-41 27-37 28-38 29-39  
31-36 32-35

normalized bonds :

8-9 8-13 9-10 10-11 11-12 12-13

G1:Ph,o-C6H4,m-C6H4,p-C6H4

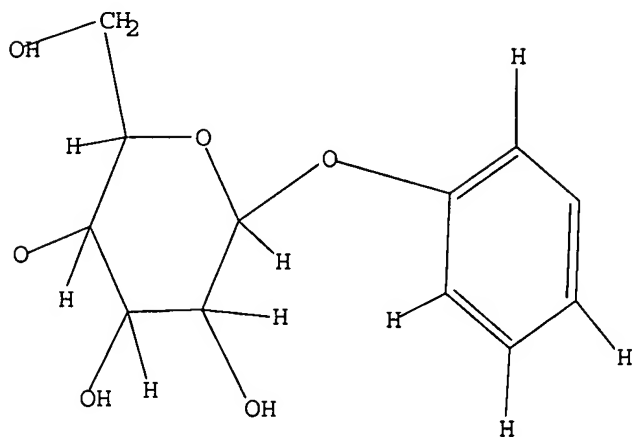
Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:Atom 10:Atom 11:Atom  
12:Atom 13:Atom 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 21:CLASS  
22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:Atom 28:Atom 29:Atom 30:Atom  
31:Atom 32:Atom 33:CLASS 34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:CLASS  
40:CLASS 41:CLASS

=>  
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L1        STRUCTURE UPLOADED

=> d 11  
L1 HAS NO ANSWERS  
L1                STR



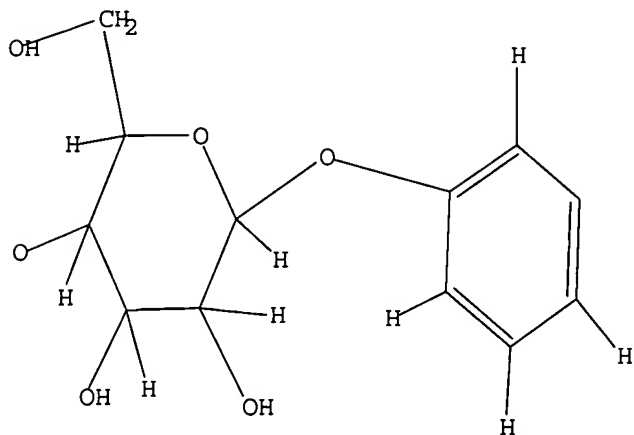
G1 Ph,o-C6H4,m-C6H4,p-C6H4

Structure attributes must be viewed using STN Express query preparation.

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L1        STRUCTURE UPLOADED

=> d l1  
L1 HAS NO ANSWERS  
L1                STR



G1 Ph,o-C6H4,m-C6H4,p-C6H4

Structure attributes must be viewed using STN Express query preparation.

=> d his

(FILE 'HOME' ENTERED AT 10:10:19 ON 22 DEC 2005)

FILE 'CAPLUS, MEDLINE' ENTERED AT 10:10:31 ON 22 DEC 2005

L1	0 S BIPHENYL LACTOSE
L2	37 S BIPHENYL (P) LACTOSE
L3	0 S BIPHENYL W2 LACTOSE
L4	0 S ALKYL PHENYL LACTOSE
L5	0 S ?ALKYL PHENYL LACTOSE
L6	0 S ?ALKYLPHENYL LACTOSE
L7	7 S ?ALKYLPHENYL (P) LACTOSE
L8	0 S NANOFIBER? (P) LACTOSE?
L9	1 S NANOSCALE? (P) LACTOSE?
L10	160 S AGGREGATES? (P) LACTOSE?
L11	3 S L10 AND HYDROCARBON?
L12	410 S SURFACTANT (P) LACTOSE?
L13	9 S L12 AND HYDROCARBON?
L14	2 S HYDROCARBON (P) TAIL? (P) LACTOSE?
L15	2 S HYDROCARBON? (P) TAIL? (P) LACTOSE?
L16	154 S HYDROCARBON? (P) LACTOSE?
L17	39 S L16 AND DERIVATIVE?

=> d his

(FILE 'HOME' ENTERED AT 10:10:19 ON 22 DEC 2005)

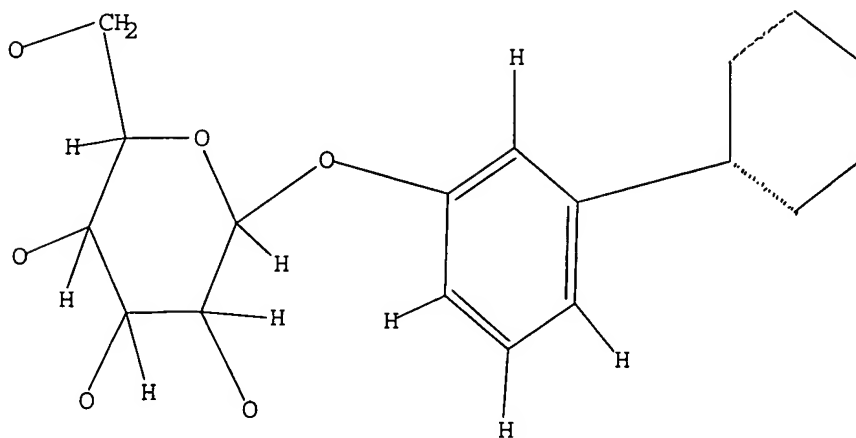
FILE 'CAPLUS, MEDLINE' ENTERED AT 10:10:31 ON 22 DEC 2005

L1	0 S BIPHENYL LACTOSE
L2	37 S BIPHENYL (P) LACTOSE
L3	0 S BIPHENYL W2 LACTOSE
L4	0 S ALKYL PHENYL LACTOSE
L5	0 S ?ALKYL PHENYL LACTOSE
L6	0 S ?ALKYLPHENYL LACTOSE
L7	7 S ?ALKYLPHENYL (P) LACTOSE
L8	0 S NANOFIBER? (P) LACTOSE?
L9	1 S NANOSCALE? (P) LACTOSE?
L10	160 S AGGREGATES? (P) LACTOSE?
L11	3 S L10 AND HYDROCARBON?
L12	410 S SURFACTANT (P) LACTOSE?
L13	9 S L12 AND HYDROCARBON?
L14	2 S HYDROCARBON (P) TAIL? (P) LACTOSE?
L15	2 S HYDROCARBON? (P) TAIL? (P) LACTOSE?
L16	154 S HYDROCARBON? (P) LACTOSE?
L17	39 S L16 AND DERIVATIVE?

=>  
Uploading C:\Program Files\Stnexp\Queries\nano-124-a.str

L1 STRUCTURE UPLOADED

=> d l1  
L1 HAS NO ANSWERS  
L1 STR



G1 Ph,o-C<sub>6</sub>H<sub>4</sub>,m-C<sub>6</sub>H<sub>4</sub>,p-C<sub>6</sub>H<sub>4</sub>

Structure attributes must be viewed using STN Express query preparation.



=> d his

(FILE 'HOME' ENTERED AT 11:04:55 ON 22 DEC 2005)

FILE 'REGISTRY' ENTERED AT 11:05:06 ON 22 DEC 2005

L1               STRUCTURE UPLOADED  
L2               3 S L1 SSS SAM  
L3               323 S L1 SSS FULL

FILE 'CAPLUS, MEDLINE' ENTERED AT 11:10:10 ON 22 DEC 2005

L4               1070 S L3  
L5               101 S L4 AND LACTOSE  
L6               202 S L4 AND ?LACTOSE?  
L7               10 S L6 AND CHAIN?  
L8               3 S L5 AND CHAIN?  
L9               0 S L5 AND HYDROCARBON?  
L10              8 S L5 AND ALKYL?  
L11              26 S L5 AND DISACCHARIDE?  
L12              0 S L5 AND ALKYLPHENYL  
L13              0 S L5 AND ALKYL PHENYL  
L14              0 S L5 AND ALKYLARYL  
L15              0 S L5 AND ALKYL ARYL  
L16              16 S L4 AND NANO?  
L17              1 S L5 AND NANO?  
L18              4 S L5 AND ?LIPID?  
L19              78 S L4 AND DISACCHARIDE?  
L20              0 S L19 AND LIPID?  
L21              2 S L19 AND ?LIPID?  
L22              1 S L19 AND ?DECA?

FILE 'REGISTRY' ENTERED AT 11:50:34 ON 22 DEC 2005

L23              STRUCTURE UPLOADED  
L24              0 S L23 SSS  
L25              0 S L23 SSS FULL

FILE 'STNGUIDE' ENTERED AT 11:54:52 ON 22 DEC 2005

FILE 'CAPLUS, MEDLINE' ENTERED AT 11:55:23 ON 22 DEC 2005

=> d his

(FILE 'HOME' ENTERED AT 11:04:55 ON 22 DEC 2005)

FILE 'REGISTRY' ENTERED AT 11:05:06 ON 22 DEC 2005

L1               STRUCTURE UPLOADED  
L2               3 S L1 SSS SAM  
L3               323 S L1 SSS FULL

FILE 'CAPLUS, MEDLINE' ENTERED AT 11:10:10 ON 22 DEC 2005

L4               1070 S L3  
L5               101 S L4 AND LACTOSE  
L6               202 S L4 AND ?LACTOSE?  
L7               10 S L6 AND CHAIN?  
L8               3 S L5 AND CHAIN?  
L9               0 S L5 AND HYDROCARBON?  
L10              8 S L5 AND ALKYL?  
L11              26 S L5 AND DISACCHARIDE?  
L12              0 S L5 AND ALKYLPHENYL  
L13              0 S L5 AND ALKYL PHENYL  
L14              0 S L5 AND ALKYLARYL  
L15              0 S L5 AND ALKYL ARYL  
L16              16 S L4 AND NANO?  
L17              1 S L5 AND NANO?  
L18              4 S L5 AND ?LIPID?  
L19              78 S L4 AND DISACCHARIDE?  
L20              0 S L19 AND LIPID?  
L21              2 S L19 AND ?LIPID?  
L22              1 S L19 AND ?DECA?

FILE 'REGISTRY' ENTERED AT 11:50:34 ON 22 DEC 2005

L23              STRUCTURE UPLOADED  
L24              0 S L23 SSS  
L25              0 S L23 SSS FULL

FILE 'STNGUIDE' ENTERED AT 11:54:52 ON 22 DEC 2005

FILE 'CAPLUS, MEDLINE' ENTERED AT 11:55:23 ON 22 DEC 2005

=> d his

(FILE 'HOME' ENTERED AT 12:08:17 ON 22 DEC 2005)

FILE 'CAPLUS, MEDLINE' ENTERED AT 12:08:49 ON 22 DEC 2005

L1	1	S	CARDANOL	(P)	NANOFIBER?	(P)	DERIV?
L2	2	S	CARDANOL	(P)	NANO?	(P)	DERIV?
L3	0	S	CARDANOL	(P)	NANO?	(P)	DISACCHARIDE?
L4	0	S	CARDANOL	(P)	NANO?	(P)	OLIGOSACCHARIDE?
L5	0	S	CARDANOL	(P)	MICRO?	(P)	OLIGOSACCHARIDE?
L6	1	S	CARDANOL	(P)	OLIGOSACCHARIDE?		

=> d his

(FILE 'HOME' ENTERED AT 12:08:17 ON 22 DEC 2005)

FILE 'CAPLUS, MEDLINE' ENTERED AT 12:08:49 ON 22 DEC 2005

L1	1 S	CARDANOL	(P)	NANOFIBER?	(P)	DERIV?
L2	2 S	CARDANOL	(P)	NANO?	(P)	DERIV?
L3	0 S	CARDANOL	(P)	NANO?	(P)	DISACCHARIDE?
L4	0 S	CARDANOL	(P)	NANO?	(P)	OLIGOSACCHARIDE?
L5	0 S	CARDANOL	(P)	MICRO?	(P)	OLIGOSACCHARIDE?
L6	1 S	CARDANOL	(P)	OLIGOSACCHARIDE?		

=> d his

(FILE 'HOME' ENTERED AT 12:08:17 ON 22 DEC 2005)

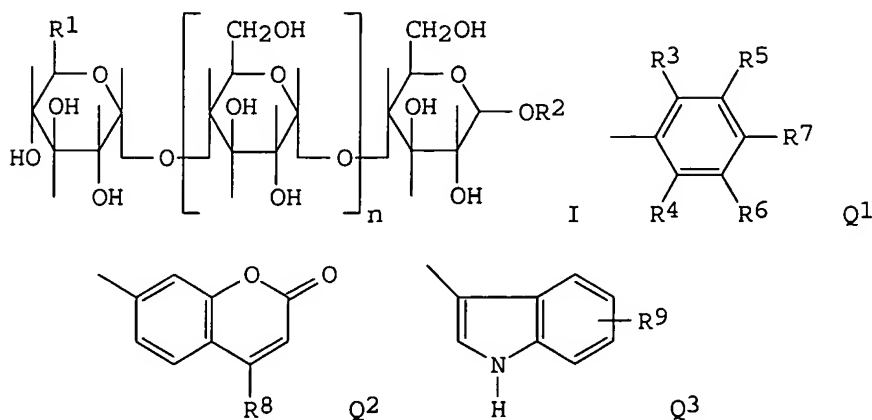
FILE 'CAPLUS, MEDLINE' ENTERED AT 12:08:49 ON 22 DEC 2005

L1	1	S	CARDANOL	(P)	NANOFIBER?	(P)	DERIV?
L2	2	S	CARDANOL	(P)	NANO?	(P)	DERIV?
L3	0	S	CARDANOL	(P)	NANO?	(P)	DISACCHARIDE?
L4	0	S	CARDANOL	(P)	NANO?	(P)	OLIGOSACCHARIDE?
L5	0	S	CARDANOL	(P)	MICRO?	(P)	OLIGOSACCHARIDE?
L6	1	S	CARDANOL	(P)	OLIGOSACCHARIDE?		

ACCESSION NUMBER: 1988:586351 CAPLUS  
 DOCUMENT NUMBER: 109:186351  
 TITLE:  $\alpha$ -Amylase assay using modified oligosaccharide  
 and process for producing the modified oligosaccharide  
 INVENTOR(S): Ikenaka, Tokuji; Omichi, Kaoru; Satomura, Shinji;  
 Nagamine, Yuko  
 PATENT ASSIGNEE(S): Wako Pure Chemical Industries, Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 33pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 252525	A2	19880113	EP 1987-110023	19870710
EP 252525	A3	19900829		
EP 252525	B1	19931110		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 63170393	A2	19880714	JP 1987-2730	19870109
JP 06030602	B4	19940427		
EP 530850	A2	19930310	EP 1992-116958	19870710
EP 530850	A3	19960110		
EP 530850	B1	19980909		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 97131	E	19931115	AT 1987-110023	19870710
ES 2060584	T3	19941201	ES 1987-110023	19870710
AT 170925	E	19980915	AT 1992-116958	19870710
JP 63301892	A2	19881208	JP 1988-10497	19880120
JP 06086474	B4	19941102		
US 5192666	A	19930309	US 1989-465660	19891229
US 5319078	A	19940607	US 1992-972801	19921106
PRIORITY APPLN. INFO.:				
			JP 1986-163054	A 19860711
			JP 1987-2730	A 19870109
			JP 1987-15776	A 19870126
			EP 1987-110023	A 19870710
			US 1987-72208	B1 19870710
			US 1989-465660	A3 19891229

OTHER SOURCE(S): MARPAT 109:186351  
 GI



AB Oligosaccharide derivs. (I; R1 = Me, PhCH2OCH2; R2 = Q1-Q3; R3-R6 = H, lower **alkyl**, lower alkoxy, NO2, CO2H, SO3H, halo; R3 and R5 and/or R4 and R6 may be part of aromatic ring; R7 = H, lower alkoxy, halo, NO2; R8 = H, Me, CF3; R9 = H, halo; n = 3) are synthesized and used to determine  $\alpha$ -amylase activity. I (R1 = CH2OCH2Ph, R2 = p-nitrophenyl) was synthesized by the cyclomaltodextrin glucanotransferase-catalyzed reaction of mono-O-benzyl- $\beta$ -cyclodextrin and p-nitrophenyl- $\alpha$ -D-glucopyranoside followed by digestion with glucoamylase. I was incubated with serum samples (and glucoamylase and  $\alpha$ -glucosidase to release the chromophore) to determine the  $\alpha$ -amylase activity.

IT **112241-64-2P 112241-65-3P**

RL: PREP (Preparation)

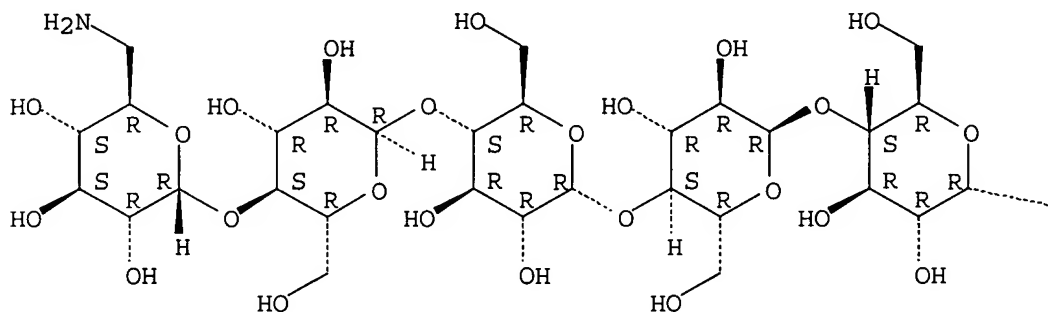
(preparation of, as substrate for  $\alpha$ -amylase determination)

RN 112241-64-2 CAPLUS

CN  $\alpha$ -D-Glucopyranoside, phenyl O-6-amino-6-deoxy- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

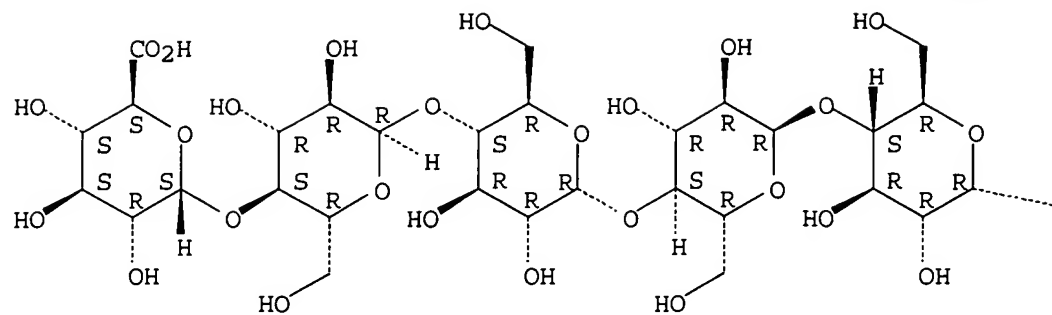
...OPh

RN 112241-65-3 CAPLUS

CN  $\alpha$ -D-Glucopyranoside, phenyl O- $\alpha$ -D-glucopyranuronosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

 $\cdots \text{OPh}$



L16 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1988:586351 CAPLUS

DOCUMENT NUMBER: 109:186351

TITLE:  $\alpha$ -Amylase assay using modified oligosaccharide  
and process for producing the modified oligosaccharide

INVENTOR(S): Ikenaka, Tokuji; Omichi, Kaoru; Satomura, Shinji;  
Nagamine, Yuko

PATENT ASSIGNEE(S): Wako Pure Chemical Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 33pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

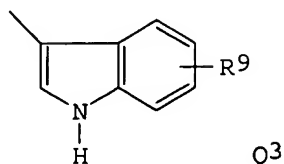
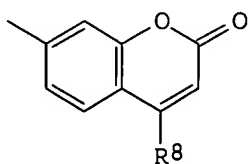
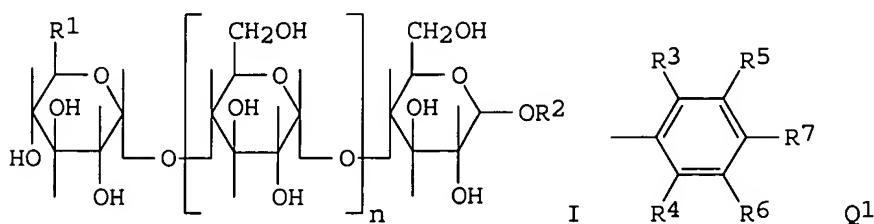
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 252525	A2	19880113	EP 1987-110023	19870710
EP 252525	A3	19900829		
EP 252525	B1	19931110		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 63170393	A2	19880714	JP 1987-2730	19870109
JP 06030602	B4	19940427		
EP 530850	A2	19930310	EP 1992-116958	19870710
EP 530850	A3	19960110		
EP 530850	B1	19980909		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 97131	E	19931115	AT 1987-110023	19870710
ES 2060584	T3	19941201	ES 1987-110023	19870710
AT 170925	E	19980915	AT 1992-116958	19870710
JP 63301892	A2	19881208	JP 1988-10497	19880120
JP 06086474	B4	19941102		
US 5192666	A	19930309	US 1989-465660	19891229
US 5319078	A	19940607	US 1992-972801	19921106
PRIORITY APPLN. INFO.:				JP 1986-163054 A 19860711
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				JP 1987-15776 A 19870126
				EP 1987-110023 A 19870710
				US 1987-72208 B1 19870710
				US 1989-465660 A3 19891229

OTHER SOURCE(S): MARPAT 109:186351

GI



AB Oligosaccharide derivs. (I; R1 = Me, PhCH2OCH2; R2 = Q1-Q3; R3-R6 = H, lower **alkyl**, lower alkoxy, NO2, CO2H, SO3H, halo; R3 and R5 and/or R4 and R6 may be part of aromatic ring; R7 = H, lower alkoxy, halo, NO2; R8 = H, Me, CF3; R9 = H, halo; n = 3) are synthesized and used to determine  $\alpha$ -amylase activity. I (R1 = CH2OCH2Ph, R2 = p-nitrophenyl) was synthesized by the cyclomaltodextrin glucanotransferase-catalyzed reaction of mono-O-benzyl- $\beta$ -cyclodextrin and p-nitrophenyl- $\alpha$ -D-glucopyranoside followed by digestion with glucoamylase. I was incubated with serum samples (and glucoamylase and  $\alpha$ -glucosidase to release the chromophore) to determine the  $\alpha$ -amylase activity.

IT 112241-64-2P 112241-65-3P

RL: PREP (Preparation)

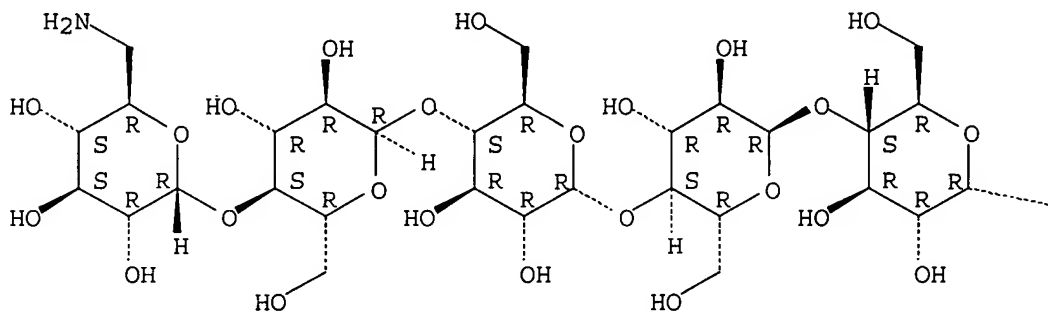
(preparation of, as substrate for  $\alpha$ -amylase determination)

RN 112241-64-2 CAPLUS

CN  $\alpha$ -D-Glucopyranoside, phenyl O-6-amino-6-deoxy- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



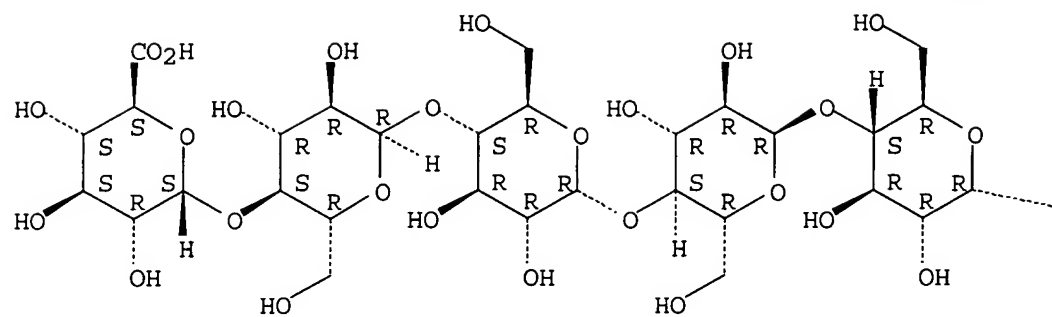
PAGE 1-B

...OPh

RN 112241-65-3 CAPLUS

CN  $\alpha$ -D-Glucopyranoside, phenyl O- $\alpha$ -D-glucopyranuronosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- (9CI) (CA INDEX NAME)

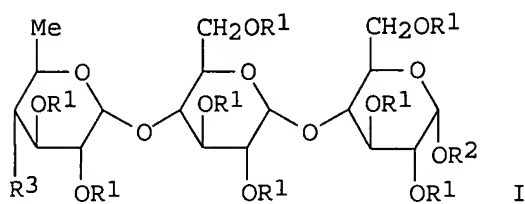
Absolute stereochemistry.



.....OPh

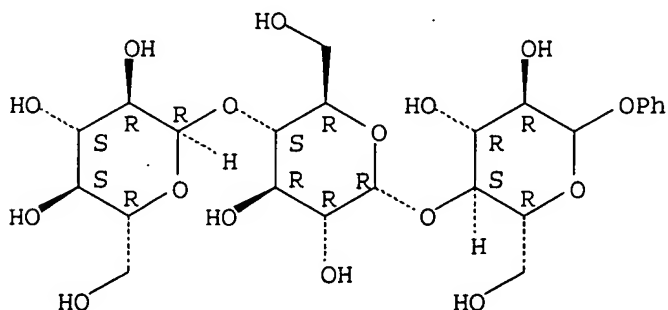
L16 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1986:34300 CAPLUS  
 DOCUMENT NUMBER: 104:34300  
 TITLE: Maltotriose derivatives  
 INVENTOR(S): Schmidt, Richard R.; Laesecke, Klaus  
 PATENT ASSIGNEE(S): Byk-Gulden Lomberg Chemische Fabrik G.m.b.H., Fed.  
 Rep. Ger.  
 SOURCE: Patentschrift (Switz.), 10 pp.  
 CODEN: SWXXAS  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CH 648326	A	19850315	CH 1981-7010	19811103
PRIORITY APPLN. INFO.:			CH 1981-7010	19811103
OTHER SOURCE(S):	CASREACT 104:34300			
GI				



AB The title compds. [I, R1 = protecting groups; R2 = (substituted) (ar) **alkyl**, (substituted)aryl; R3 = NH2], intermediates for the synthesis of acarbose, or prepared Thus, 600 mg I (R1 = PhCH2, R2 = Ph, R3 = N3), prepared in many steps from either maltotriose or maltose, was added slowly to 20 mg LiAlH4 in 5 mL dioxane at 100° and the resulting mixture refluxed for 1 h to give 520 mg I (R1 = PhCH2, R2 = Ph, R3 = NH2).  
 IT **99746-05-1P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and acetalization of, with benzaldehyde)  
 RN 99746-05-1 CAPLUS  
 CN D-Glucopyranoside, phenyl O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **88773-11-9P**

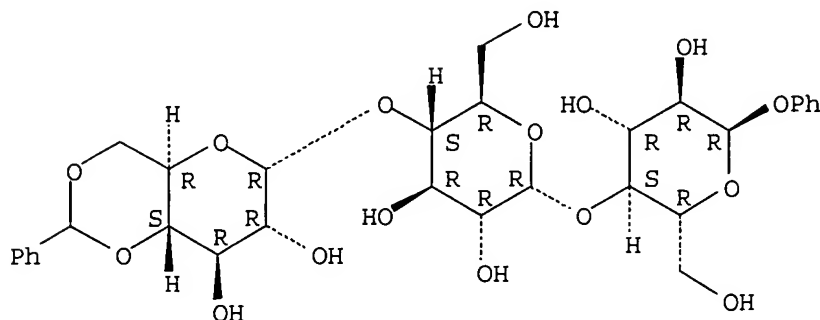
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and benzylation of)

RN 88773-11-9 CAPLUS

CN  $\alpha$ -D-Glucopyranoside, phenyl O-4,6-O-(phenylmethylene)- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

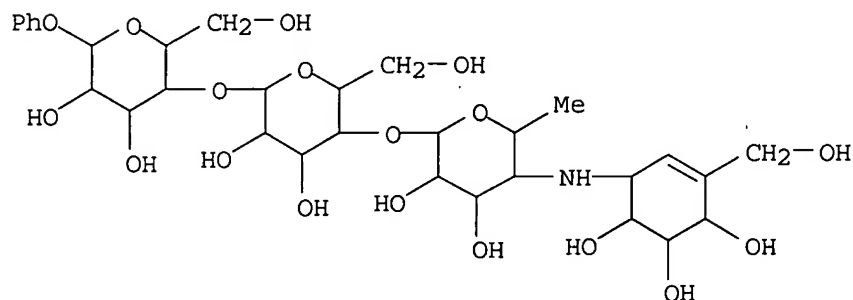


IT 99746-06-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 99746-06-2 CAPLUS

CN  $\alpha$ -D-Glucopyranoside, phenyl O-4,6-dideoxy-4-[[4,5,6-trihydroxy-3-(hydroxymethyl)-2-cyclohexen-1-yl]amino]- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-, [1S-(1 $\alpha$ ,4 $\alpha$ ,5 $\beta$ ,6 $\alpha$ )]- (9CI) (CA INDEX NAME)



L16 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:34300 CAPLUS

DOCUMENT NUMBER: 104:34300

TITLE: Maltotriose derivatives

INVENTOR(S): Schmidt, Richard R.; Laesecke, Klaus

PATENT ASSIGNEE(S): Byk-Gulden Lomberg Chemische Fabrik G.m.b.H., Fed.  
Rep. Ger.

SOURCE: Patentschrift (Switz.), 10 pp.

CODEN: SWXXAS

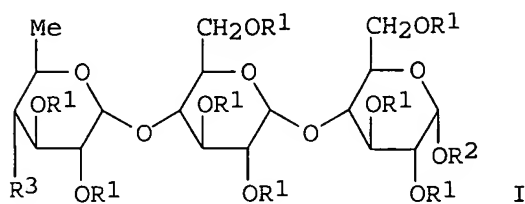
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CH 648326	A	19850315	CH 1981-7010	19811103
PRIORITY APPLN. INFO.:			CH 1981-7010	19811103
OTHER SOURCE(S):	CASREACT 104:34300			
GI				



AB The title compds. [I, R1 = protecting groups; R2 = (substituted) (ar) **alkyl**, (substituted)aryl; R3 = NH2], intermediates for the synthesis of acarbose, or prepared Thus, 600 mg I (R1 = PhCH2, R2 = Ph, R3 = N3), prepared in many steps from either maltotriose or maltose, was added slowly to 20 mg LiAlH4 in 5 mL dioxane at 100° and the resulting mixture refluxed for 1 h to give 520 mg I (R1 = PhCH2, R2 = Ph, R3 = NH2).

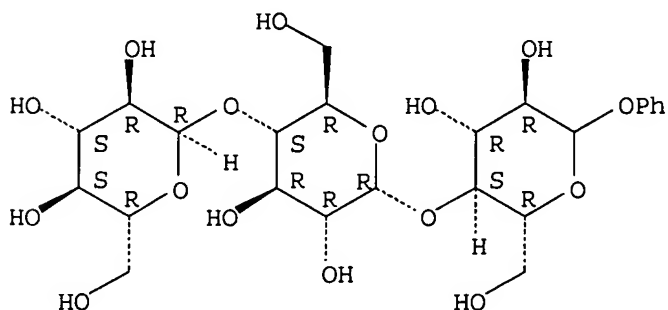
IT 99746-05-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and acetalization of, with benzaldehyde)

RN 99746-05-1 CAPLUS

CN D-Glucopyranoside, phenyl O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)- (9CI) (CA INDEX NAME)

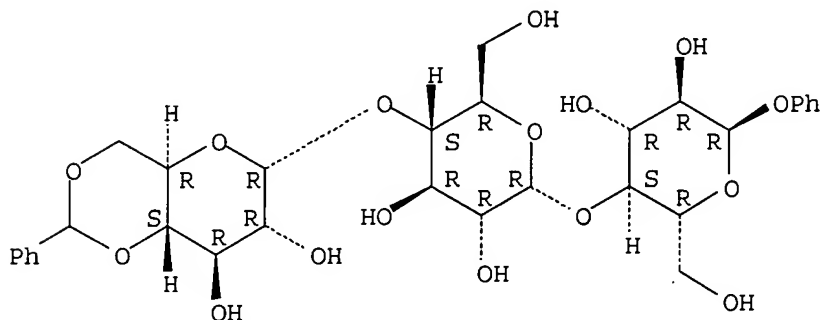
Absolute stereochemistry.



IT 88773-11-9P

RN 88773-11-9 CAPLUS

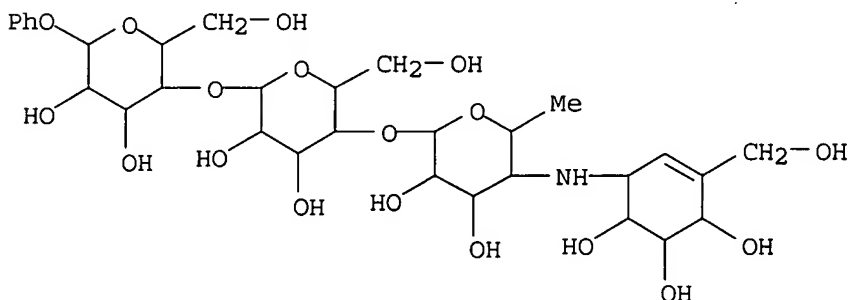
Absolute stereochemistry.



IT 99746-06-2P

RN 99746-06-2 CAPLUS

CN     $\alpha$ -D-Glucopyranoside, phenyl O-4,6-dideoxy-4-[[4,5,6-trihydroxy-3-(hydroxymethyl)-2-cyclohexen-1-yl]amino]- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-, [1S-(1 $\alpha$ ,4 $\alpha$ ,5 $\beta$ ,6 $\alpha$ )]- (9CI) (CA INDEX NAME)



L21 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1983:576218 CAPLUS

DOCUMENT NUMBER: 99:176218

TITLE: Salts of polyhexaose sulfate derivatives as modulators of the complement system

INVENTOR(S): Miner, Thomas Gary; Bernstein, Seymour; Joseph, Joseph Peter

PATENT ASSIGNEE(S): American Cyanamid Co. , USA

SOURCE: Eur. Pat. Appl., 42 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

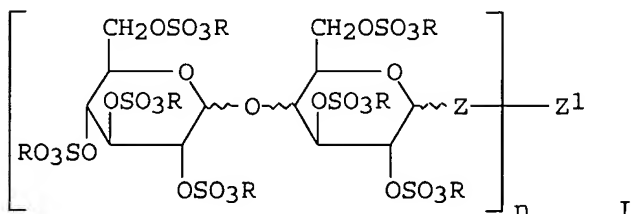
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 82927	A1	19830706	EP 1982-109084	19821001
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4374832	A	19830222	US 1981-334940	19811228
US 4407796	A	19831004	US 1981-334937	19811228
ZA 8209510	A	19830928	ZA 1982-9510	19821227
PRIORITY APPLN. INFO.:			US 1981-334937	A 19811228
			US 1981-334940	A 19811228

GI



AB The title compds. (I; R = nontoxic pharmaceutically acceptable cation; Z = O, S, SO, SO<sub>2</sub>; n = 2, 3; Z<sub>1</sub> = arylene, e.g., **benzenediyl**, **benzenetriyl**, biphenyldiyl, naphthalenediyl, and C<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>) were prepared Thus, 1,3-dimercaptobenzene was treated with NaH and 1-bromoheptaacetylmaltose in dimethoxyethane to give 1,3-bis[4-O- $\alpha$ -D-glucopyranosyl- $\beta$ -D-glucopyranosyl-1-thio]phenylene (II) tetradecaacetate, which was sequentially deacetylated, sulfurated with SO<sub>3</sub>-Et<sub>3</sub>N, and treated with AcONa and cationic ion exchange resin (Na<sup>+</sup> form) to give II tetradecakis(H-sulfate) tetradeca-Na salt (III). III showed in vitro and in vivo complement modulating activity.

IT **85679-76-1P**

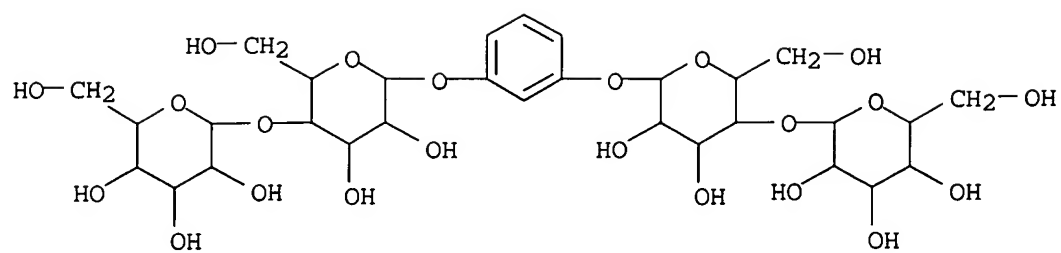
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and sulfuration of, with sulfur trioxide, triethylamine)

RN 85679-76-1 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 1,3-phenylene bis[4-O- $\alpha$ -D-glucopyranosyl- (9CI) (CA INDEX NAME)





L21 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1983:576218 CAPLUS

DOCUMENT NUMBER: 99:176218

TITLE: Salts of polyhexaose sulfate derivatives as modulators of the complement system

INVENTOR(S): Miner, Thomas Gary; Bernstein, Seymour; Joseph, Joseph Peter

PATENT ASSIGNEE(S): American Cyanamid Co. , USA

SOURCE: Eur. Pat. Appl., 42 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

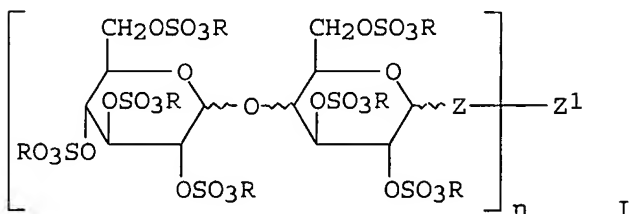
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 82927	A1	19830706	EP 1982-109084	19821001
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4374832	A	19830222	US 1981-334940	19811228
US 4407796	A	19831004	US 1981-334937	19811228
ZA 8209510	A	19830928	ZA 1982-9510	19821227
PRIORITY APPLN. INFO.:			US 1981-334937	A 19811228
			US 1981-334940	A 19811228

GI



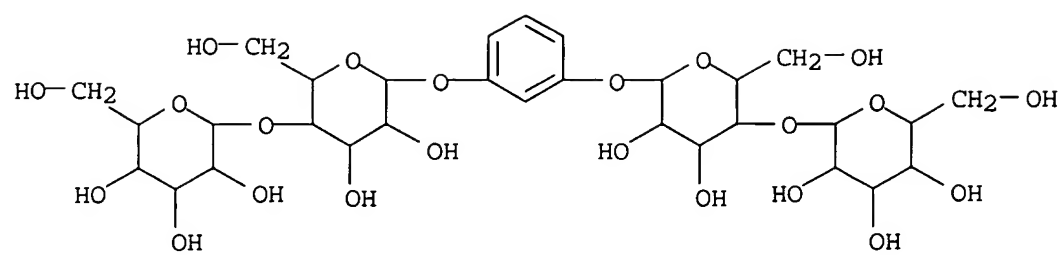
AB The title compds. (I; R = nontoxic pharmaceutically acceptable cation; Z = O, S, SO, SO<sub>2</sub>; n = 2, 3; Z<sub>1</sub> = arylene, e.g., **benzenediyl**, **benzenetriyl**, biphenyldiyl, naphthalenediyl, and C<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>) were prepared Thus, 1,3-dimercaptobenzene was treated with NaH and 1-bromoheptaacetylmaltose in dimethoxyethane to give 1,3-bis[4-O- $\alpha$ -D-glucopyranosyl- $\beta$ -D-glucopyranosyl-1-thio]phenylene (II) tetradecaacetate, which was sequentially deacetylated, sulfurated with SO<sub>3</sub>-Et<sub>3</sub>N, and treated with AcONa and cationic ion exchange resin (Na<sup>+</sup> form) to give II tetradecakis(H-sulfate) tetradeca-Na salt (III). III showed in vitro and in vivo complement modulating activity.

IT **85679-76-1P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and sulfuration of, with sulfur trioxide, triethylamine)

RN 85679-76-1 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 1,3-phenylene bis[4-O- $\alpha$ -D-glucopyranosyl-  
(9CI) (CA INDEX NAME)



L11 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:35716 CAPLUS

DOCUMENT NUMBER: 128:184543

TITLE: Surfactants derived from reducing carbohydrates:  
biological applications

AUTHOR(S): Rico-Lattes, Isabelle

CORPORATE SOURCE: UMR CNRS 5623, Laboratoire des Interactions  
moleculaires et Reactivite chimique et photochimique,  
Universite Paul Sabatier, Toulouse, 31062, Fr.

SOURCE: Comptes Rendus de l'Academie d'Agriculture de France  
(1997), 83(3), 83-92

CODEN: CRAFEQ; ISSN: 0989-6988

PUBLISHER: Academie d'Agriculture de France

DOCUMENT TYPE: Journal; General Review

LANGUAGE: French

AB A review with 11 refs. Surfactants are the key components of the organized systems used for biol. applications and it is important to use an appropriate surfactant for the process under consideration. This requires synthesis of a range of suitable surfactants by modular methods leading to variations in the structures of the compds. In this context, nonionic surfactants based on carbohydrates are very important in biol.: they have potential pharmaceutical (biocompatible formulations), biochem. (extraction of membrane proteins) and medicinal applications. Carbohydrate-based surfactants have a water soluble group derived from a carbohydrate. This is linked by different functional groups to a hydrophobic part. Variations in the nature of carbohydrate and **hydrocarbon** tails lengths determine the surfactant properties and applications of the resulting surfactant. Generally, these derivs. are not readily synthesized as the starting carbohydrates require protection. The authors present routes, avoiding protection of the starting carbohydrates, to new series of surfactants derived from **lactose** and glucose, reducing carbohydrates. These synthetic methods for the preparation of such products enable the authors to obtain mols. having 1 or 2 chains with different lengths, 2 carbohydrates heads bounded by hydrophobic spacers. All these compds. form **aggregates** in aqueous solns.: direct micelles and/or vesicles. Some of them are interesting products to extract membrane proteins (surfactants with one tail). Bolaforms compds. leading to vesicles may find applications in drug formulation. Finally soluble analogs of galactosyl ceramide (Galcer) possess activity against both HIV and Aspergillus fumigatus, a yeast responsible for opportunistic infections in AIDS patients.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:35716 CAPLUS

DOCUMENT NUMBER: 128:184543

TITLE: Surfactants derived from reducing carbohydrates:  
biological applications

AUTHOR(S): Rico-Lattes, Isabelle

CORPORATE SOURCE: UMR CNRS 5623, Laboratoire des Interactions  
moleculaires et Reactivite chimique et photochimique,  
Universite Paul Sabatier, Toulouse, 31062, Fr.

SOURCE: Comptes Rendus de l'Academie d'Agriculture de France  
(1997), 83(3), 83-92

CODEN: CRAFEQ; ISSN: 0989-6988

PUBLISHER: Academie d'Agriculture de France

DOCUMENT TYPE: Journal; General Review

LANGUAGE: French

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REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:35716 CAPLUS

DOCUMENT NUMBER: 128:184543

TITLE: Surfactants derived from reducing carbohydrates:  
biological applications

AUTHOR(S): Rico-Lattes, Isabelle

CORPORATE SOURCE: UMR CNRS 5623, Laboratoire des Interactions  
moleculaires et Reactivite chimique et photochimique,  
Universite Paul Sabatier, Toulouse, 31062, Fr.

SOURCE: Comptes Rendus de l'Academie d'Agriculture de France  
(1997), 83(3), 83-92

CODEN: CRAFEQ; ISSN: 0989-6988

PUBLISHER: Academie d'Agriculture de France

DOCUMENT TYPE: Journal; General Review

LANGUAGE: French

AB A review with 11 refs. **Surfactants** are the key components of the organized systems used for biol. applications and it is important to use an appropriate **surfactant** for the process under consideration. This requires synthesis of a range of suitable **surfactants** by modular methods leading to variations in the structures of the compds. In this context, nonionic **surfactants** based on carbohydrates are very important in biol.: they have potential pharmaceutical (biocompatible formulations), biochem. (extraction of membrane proteins) and medicinal applications. Carbohydrate-based **surfactants** have a water soluble group derived from a carbohydrate. This is linked by different functional groups to a hydrophobic part. Variations in the nature of carbohydrate and **hydrocarbon** tails lengths determine the **surfactant** properties and applications of the resulting **surfactant**. Generally, these derivs. are not readily synthesized as the starting carbohydrates require protection. The authors present routes, avoiding protection of the starting carbohydrates, to new series of **surfactants** derived from **lactose** and glucose, reducing carbohydrates. These synthetic methods for the preparation of such products enable the authors to obtain mols. having 1 or 2 chains with different lengths, 2 carbohydrates heads bounded by hydrophobic spacers. All these compds. form aggregates in aqueous solns.: direct micelles and/or vesicles. Some of them are interesting products to extract membrane proteins (**surfactants** with one tail). Bolaforms compds. leading to vesicles may find applications in drug formulation. Finally soluble analogs of galactosyl ceramide (Galcer) possess activity against both HIV and *Aspergillus fumigatus*, a yeast responsible for opportunistic infections in AIDS patients.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:271974 CAPLUS

DOCUMENT NUMBER: 136:296587

TITLE: Dry cleaning system comprising carbon dioxide solvent and carbohydrate containing cleaning surfactant

INVENTOR(S): Murphy, Dennis Stephen; Binder, David Alan

PATENT ASSIGNEE(S): Unilever Home & Personal Care, USA

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6369014	B1	20020409	US 2001-864948	20010524
US 6475968	B1	20021105	US 2002-66265	20020131
EP 1260574	A2	20021127	EP 2002-76612	20020423
EP 1260574	A3	20031119		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

CA 2383480	AA	20021124	CA 2002-2383480	20020426
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PRIORITY APPLN. INFO.:	US 2001-864948	A1 20010524
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OTHER SOURCE(S): MARPAT 136:296587

AB This invention is directed to a surfactant comprising a carbohydrate group that results in superior cleaning in a dry cleaning system. The surfactant has a **hydrocarbon** group that is more solvent-philic than a carbohydrate group, and can result in reverse micelle formation in a densified gas like densified carbon dioxide.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 39 OF 39 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1926:6070 CAPLUS

DOCUMENT NUMBER: 20:6070

ORIGINAL REFERENCE NO.: 20:751b-c

TITLE: Reaction of **lactoses** with aromatic  
**hydrocarbons** and aluminium chloride

AUTHOR(S): King, E. J.

SOURCE: Proceedings and Transactions of the Royal Society of  
Canada (1925), 19(Sec. III;3), 29  
CODEN: PTRCBI; ISSN: 0316-4616

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB Phthalide gave only o-PhCH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H. Diphenylphthalide gave no reaction.  
Phthalide with C<sub>10</sub>H<sub>8</sub> in C<sub>6</sub>H<sub>6</sub> reacts only with C<sub>6</sub>H<sub>6</sub>. In CS<sub>2</sub> C<sub>10</sub>H<sub>6</sub> with  
phthalide and with phenylphthalide gave only β-C<sub>10</sub>H<sub>7</sub> **derivs**  
. Coumarin with C<sub>6</sub>H<sub>6</sub> and AlCl<sub>3</sub> gave a very little of a product, m.  
82°, which with Br in the cold gave a product m. about 112°.



RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:400616 CAPLUS

DOCUMENT NUMBER: 135:166620

TITLE: **Nanotube** formation from renewable resources via coiled **nanofibers**

AUTHOR(S): John, George; Masuda, Mitsutoshi; Okada, Yuji; Yase, Kiyoshi; Shimizu, Toshimi

CORPORATE SOURCE: National Institute of Materials and Chemical Research, Tsukuba, 305-8565, Japan

SOURCE: Advanced Materials (Weinheim, Germany) (2001), 13(10), 715-718

CODEN: ADVMEW; ISSN: 0935-9648

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:166620

AB Glycosylation of cardanol with penta-O-acetyl- $\beta$ -D-glucopyranose followed by deprotection afforded a glycolipid mixture that self-assembled into **nanofibers** in water and acted as gelation agents. The helical morphol. of the fibers could be controlled by altering the degree of side-chain unsatn. Coiled **nanofibers** self-assembled into **nanotubes** that exhibited a phase-transition at 46° to vesicles.

IT 354579-71-8P 354579-72-9P 354579-73-0P

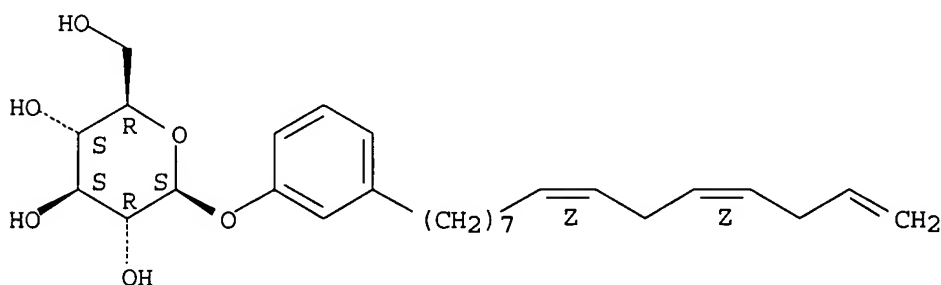
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (glycolipid mixture component; **nanotube** formation from renewable resources via coiled **nanofibers**)

RN 354579-71-8 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11,14-pentadecatrienylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

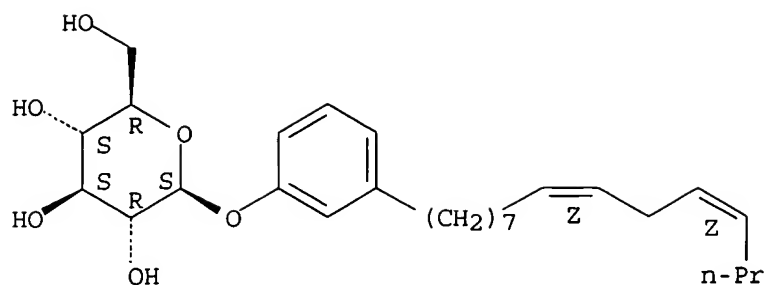


RN 354579-72-9 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11-pentadecadienylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

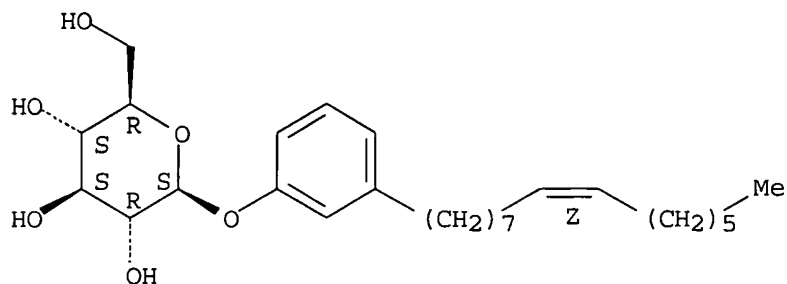
Double bond geometry as shown.



RN 354579-73-0 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z)-8-pentadecenylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



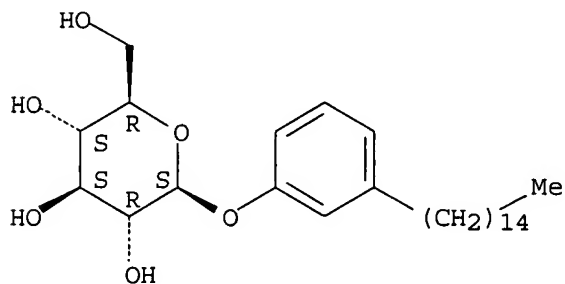
IT 354579-74-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(mixture component and sole glycolipid; **nanotube** formation from  
renewable resources via coiled **nanofibers**)

RN 354579-74-1 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-pentadecylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

55

THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:183836 CAPLUS

DOCUMENT NUMBER: 136:233460

TITLE: Hollow fibrous glycolipid **nanotube** and method for producing the same

INVENTOR(S): Shimizu, Toshimi; John, Gerge; Masuda, Mitsutoshi

PATENT ASSIGNEE(S): National Institute of Advanced Industrial Science and Technology, Japan

SOURCE: Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1186688	A1	20020313	EP 2001-307413	20010831
EP 1186688	B1	20050615		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002080489	A2	20020319	JP 2000-271192	20000907
JP 3598367	B2	20041208		
US 2002051881	A1	20020502	US 2001-939841	20010828
US 6632497	B2	20031014		

PRIORITY APPLN. INFO.: JP 2000-271192 A 20000907

AB A novel hollow fibrous organic **nanotube** can be produced by a simple procedure from a readily available and inexpensive natural material, which is regenerable and has a wide range of application. The hollow fibrous organic **nanotube** having an inner pore diameter of 10 to 20 nm and an outer diameter of 40 to 80 nm comprises an O-glycoside type glycolipid having an aldose residue as the glycosyl group and a group represented by m-OC<sub>6</sub>H<sub>4</sub>R, wherein R is an unsatd. straight-chain hydrocarbon group having 12 to 18 carbon atoms, as the aglycon. The **nanotube** structure can be obtained by gradually cooling a saturated aqueous solution of the starting

material to room temperature and the solution is kept standing for days or for weeks to cause spontaneous formation of hollow tubes as ppts. A **nanotube** was prepared from 1-(O-P-D-Glucopyranoside) cardanol.

IT 354579-74-1P

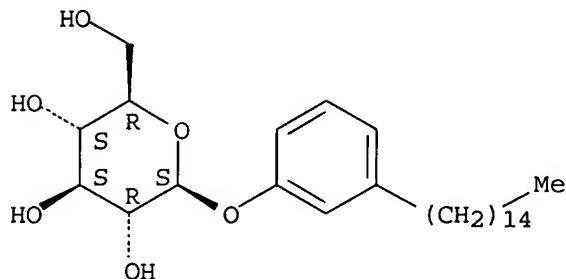
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(**nanotube**; hollow fibrous glycolipid **nanotube** and method for producing the same)

RN 354579-74-1 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-pentadecylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:610824 CAPLUS

DOCUMENT NUMBER: 137:240035

TITLE: Self-Assembling Structures of Long-Chain Phenyl  
Glucoside Influenced by the Introduction of Double  
Bonds

AUTHOR(S): Jung, Jong Hwa; John, George; Yoshida, Kaname;  
Shimizu, Toshimi

CORPORATE SOURCE: Nanoarchitectonics Research Center, CREST, Japan  
Science and Technology Corporation, Ibaraki, 305-8562,  
Japan

SOURCE: Journal of the American Chemical Society (2002),  
124(36), 10674-10675

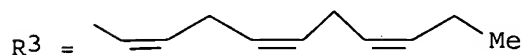
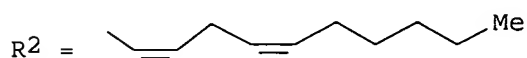
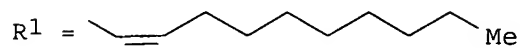
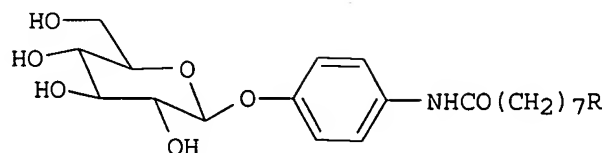
CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Four long-chain Ph glucoside amphiphiles, I [R = (CH<sub>2</sub>)<sub>10</sub>Me, R<sub>1</sub>-R<sub>3</sub>], possessing a saturated or unsatd. long alkyl chain group as the self-assembling unit of a highly organized mol. architecture were synthesized. Their self-assembling properties were investigated by EF-TEM, SEM, CD, FT-IR, and XRD. Compound I (R = R<sub>1</sub>) possessing one double bond in the lipophilic portion showed twisted helical fibers, which formed a bilayered structure with a 3.59 nm period, while compound I (R = R<sub>2</sub>) showed the helical ribbons and left-handed **nanotubular** structures with 150-200 nm inner diams. and ca. 20 nm of wall. Very interestingly, compound I (R = R<sub>3</sub>) possessing three double bonds showed a **nanotubular** structure with ca. 70 nm of inner diameter through a helical ribbon, which formed a loose bilayered structure with 4.62 nm. These results indicate that self-assembling properties strongly depend on the number of cis double bonds.

IT 459167-17-0 459167-19-2 459167-20-5  
459167-22-7

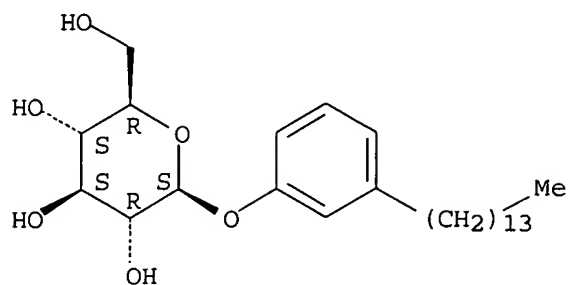
RL: PRP (Properties)

(self-assembling structures of long-chain Ph glucoside influenced by  
the introduction of double bonds)

RN 459167-17-0 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-tetradecylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

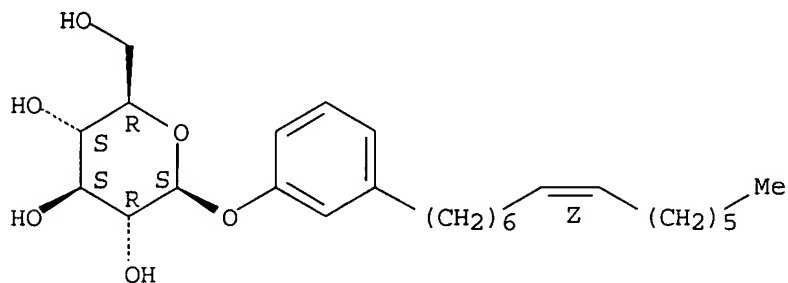


RN 459167-19-2 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(7Z)-7-tetradecenylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

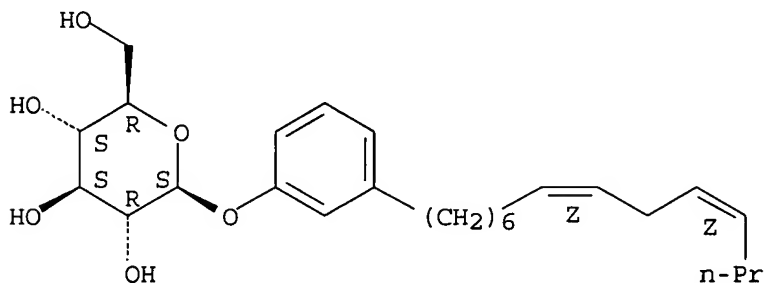


RN 459167-20-5 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(7Z,10Z)-7,10-tetradecadienylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

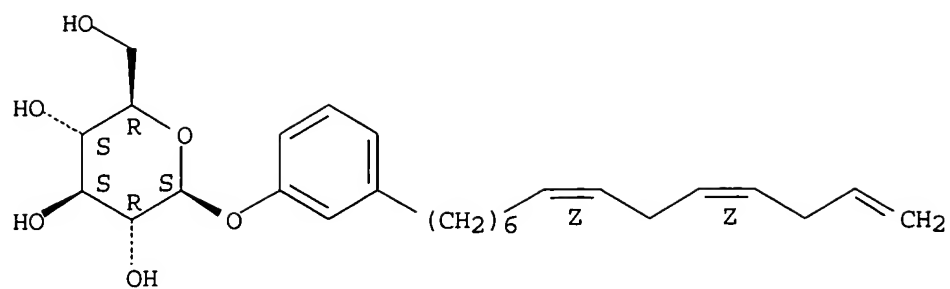


RN 459167-22-7 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(7Z,10Z)-7,10,13-tetradecatrienylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



REFERENCE COUNT:

20

THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:961016 CAPLUS

DOCUMENT NUMBER: 138:321443

TITLE: Morphological control of helical solid bilayers in high-axial-ratio **nanost**uctures through binary self-assembly

AUTHOR(S): John, George; Jung, Jong Hwa; Minamikawa, Hiroyuki; Yoshida, Kaname; Shimizu, Toshimi

CORPORATE SOURCE: CREST, Japan Science and Technology Corporation (JST) NARC, AIST, Tsukuba, 305-8562, Japan

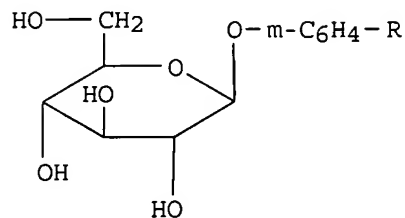
SOURCE: Chemistry--A European Journal (2002), 8(23), 5494-5500 CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Mixed mol. species of cardanyl glucoside (I; R = (CH<sub>2</sub>)<sub>14</sub>CH<sub>3</sub>, (CH<sub>2</sub>)<sub>7</sub>CH:CH(CH<sub>2</sub>)<sub>5</sub>CH<sub>3</sub>, (CH<sub>2</sub>)<sub>7</sub>(CH:CHCH<sub>2</sub>)<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, (CH<sub>2</sub>)<sub>7</sub>(CH:CHCH<sub>2</sub>)<sub>2</sub>CH:CH<sub>2</sub>) derived from renewable resources provide **nanotubes** upon self-assembly in water, while the saturated homolog generated a twisted fibrous morphol. The cardanyl glucoside mixture was fractionated into four individual components in order to study their contribution to the **nanotube** formation. The rational control of self-assembled helical morphologies was achieved by binary self-assembling of the saturated and monoene derivs. This method can generate a diversity of self-assembled high-axial-ratio **nanost**uctures (HARNs), ranging from twisted ribbons and helical ribbons to **nanotubes**.

IT 354579-71-8 354579-72-9 354579-73-0

354579-74-1 514210-85-6

RL: PRP (Properties)

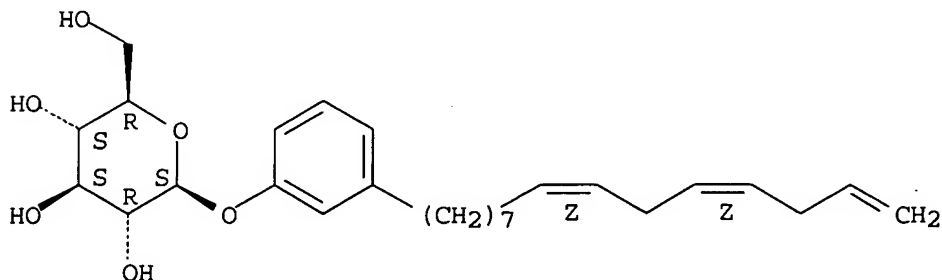
(binary aqueous self-assembly of cardanyl glucosides to form high-axial-ratio **nanost**uctures)

RN 354579-71-8 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11,14-pentadecatrienylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

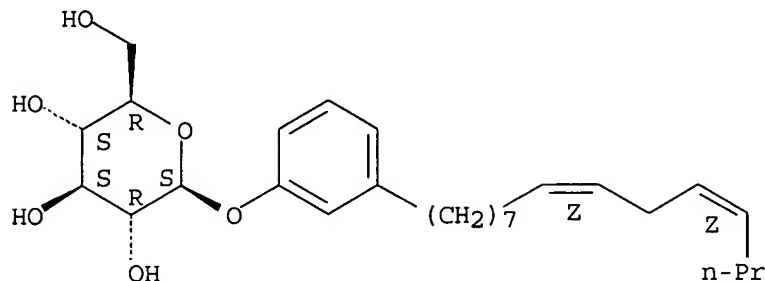
Double bond geometry as shown.





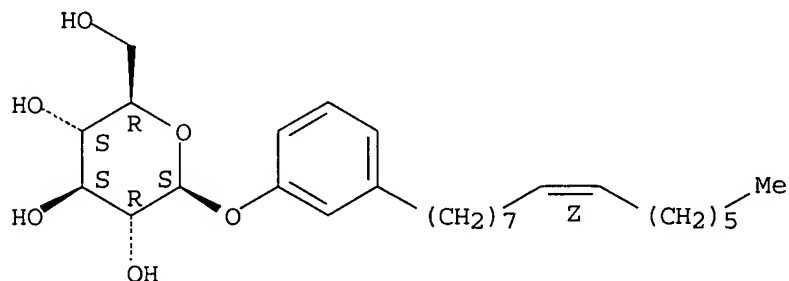
RN 354579-72-9 CAPLUS  
 CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11-pentadecadienylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



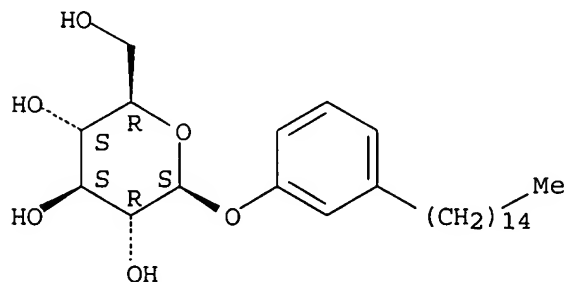
RN 354579-73-0 CAPLUS  
 CN  $\beta$ -D-Glucopyranoside, 3-(8Z)-8-pentadecenylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RN 354579-74-1 CAPLUS  
 CN  $\beta$ -D-Glucopyranoside, 3-pentadecylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

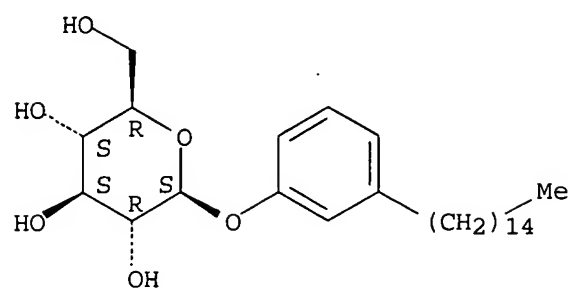


RN 514210-85-6 CAPLUS  
 CN  $\beta$ -D-Glucopyranoside, 3-(8Z)-8-pentadecenylphenyl, compd. with 3-pentadecylphenyl  $\beta$ -D-glucopyranoside (9CI) (CA INDEX NAME)

CM 1

CRN 354579-74-1  
 CMF C27 H46 O6

Absolute stereochemistry.

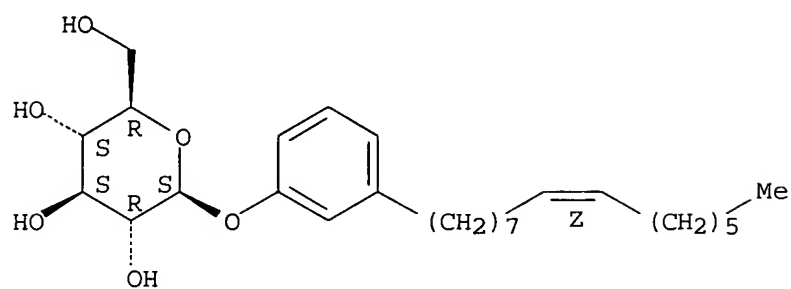


CM 2

CRN 354579-73-0

CMF C27 H44 O6

Absolute stereochemistry.  
Double bond geometry as shown.



REFERENCE COUNT:

42

THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:1079185 CAPLUS

DOCUMENT NUMBER: 143:422540

TITLE: Self-assembling structures of long-chain sugar-based amphiphiles influenced by the introduction of double bonds

AUTHOR(S): Jung, Jong Hwa; Do, Youngkyu; Lee, Young-A.; Shimizu, Toshimi

CORPORATE SOURCE: CREST, Nanoarchitectonics Research Center (NARC)  
National Institute of Advanced Industrial Science and Technology (AIST), Japan Science and Technology Corporation (JST), 1-1-1 Higashi, Tsukuba, Ibaraki, 305-8562, Japan

SOURCE: Chemistry--A European Journal (2005), 11(19), 5538-5544

CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Nine Ph glucoside or galactoside amphiphiles possessing a saturated or unsatd. long alkyl-chain group as the self-assembling unit of a highly organized mol. architecture were synthesized. Their self-assembly properties were investigated by using energy-filtering TEM (EF-TEM), SEM, CD, XRD, and FT-IR techniques. Compound 2, possessing one cis double bond in the lipophilic portion, exhibited twisted helical fibers, which formed a bilayer structure with a 3.59 nm period, while 3 exhibited helical ribbons and left-handed **nano**-tubular structures with 150-200 nm inner diams. and a wall thickness of approx. 20 nm. Very interestingly, 4, possessing three cis double bonds, exhibited a **nano**-tubular structure with an inner diameter of approx. 70 nm and a d spacing value of 4.62 nm. On the other hand, 7, possessing two trans double bonds in the lipophilic region, exhibited crystal- or plate-like structures, which formed a bilayer structure with a d spacing value of 3.93 nm. These results indicate that the self-assembly properties are strongly dependent on the type of double bond. Furthermore, 8 and 9, with the galactopyranose moiety, revealed helical ribbon and well-defined double helical fiber structures, resp. These findings support the view that the orientation of the intermol. hydrogen-bonding interaction between the sugar moieties plays a critical role in producing the **nano**-tubular structures. According to CD and powder XRD expts., the relatively strong intermol. hydrogen-bonding interaction of the glucopyranoside moiety in 3 and 4 provided a highly ordered chiral packing structure. Even though these compds. formed a weak hydrophobic interaction between lipophilic groups, it led to the formation of the **nano**-tubular structure.

IT 459167-17-0 459167-19-2 459167-20-5  
459167-22-7

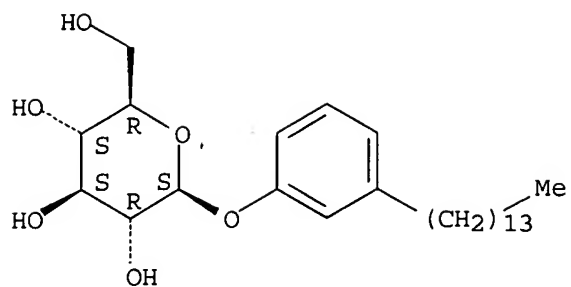
RL: PRP (Properties)

(self-assembling structures of long-chain sugar-based amphiphiles influenced by the introduction of double bonds)

RN 459167-17-0 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-tetradecylphenyl (9CI) (CA INDEX NAME)

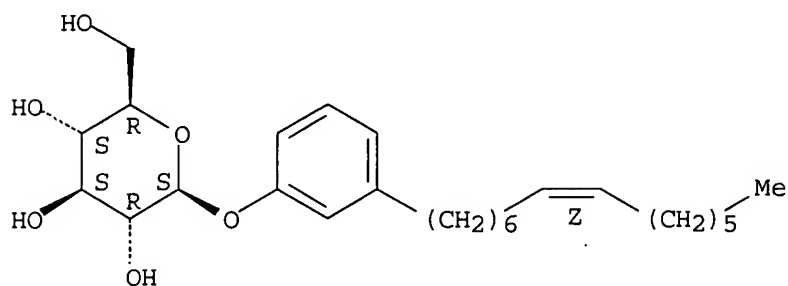
Absolute stereochemistry.



RN 459167-19-2 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(7Z)-7-tetradecenylphenyl (9CI) (CA INDEX NAME)

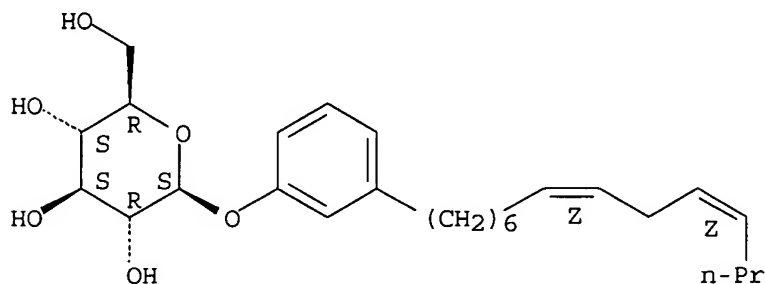
Absolute stereochemistry.  
Double bond geometry as shown.



RN 459167-20-5 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(7Z,10Z)-7,10-tetradecadienylphenyl (9CI) (CA INDEX NAME)

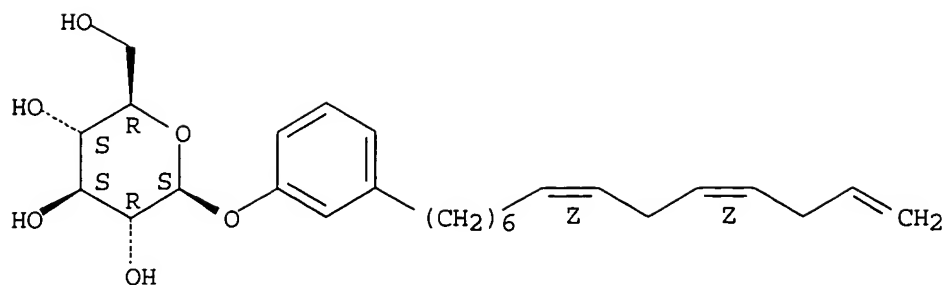
Absolute stereochemistry.  
Double bond geometry as shown.



RN 459167-22-7 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(7Z,10Z)-7,10,13-tetradecatrienylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:168040 CAPLUS

DOCUMENT NUMBER: 142:406198

TITLE: Structure-activity relationships of galabioside derivatives as inhibitors of E. coli and S. suis adhesins: **nanomolar** inhibitors of S. suis adhesins

AUTHOR(S): Ohlsson, Joergen; Larsson, Andreas; Haataja, Sauli; Alajaeaeaki, Jenny; Stenlund, Peter; Pinkner, Jerome S.; Hultgren, Scott J.; Finne, Jukka; Kihlberg, Jan; Nilsson, Ulf J.

CORPORATE SOURCE: Organic Chemistry, Lund University, Lund, SE-221 00, Swed.

SOURCE: Organic & Biomolecular Chemistry (2005), 3(5), 886-900  
CODEN: OBCRAK; ISSN: 1477-0520

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:406198

AB Four collections of Gal $\alpha$ 1-4Gal derivs. were synthesized and evaluated as inhibitors of the PapG class II adhesin of uropathogenic Escherichia coli and of the PN and PO adhesins of Streptococcus suis strains. Galabiosides carrying aromatic structures at C1, methoxyphenyl O-galabiosides in particular, were identified as potent inhibitors of the PapG adhesin. Phenylurea derivatization at C3' and methoxymethylation at O2' of galabiose provided inhibitors of the S. suis strains type PN adhesin with remarkably high affinities (30 and 50 nM, resp.). In addition, quant. structure-activity relationship models for E. coli PapG adhesin and S. suis adhesin type PO were developed using multivariate data anal. The inhibitory lead structures constitute an advancement towards high-affinity inhibitors as potential anti-adhesion therapeutic agents targeting bacterial infections.

IT 579473-06-6P 850495-18-0P

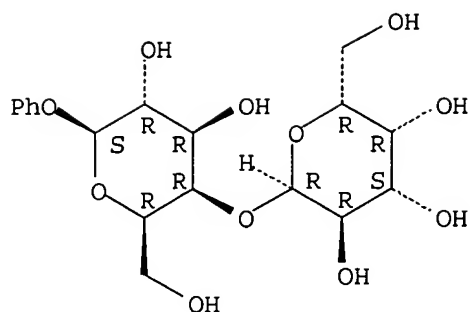
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(structure-activity relationships of galabioside derivs. as inhibitors of Escherichia coli and Streptococcus suis adhesins)

RN 579473-06-6 CAPLUS

CN  $\beta$ -D-Galactopyranoside, phenyl 4-O- $\alpha$ -D-galactopyranosyl- (9CI)  
(CA INDEX NAME)

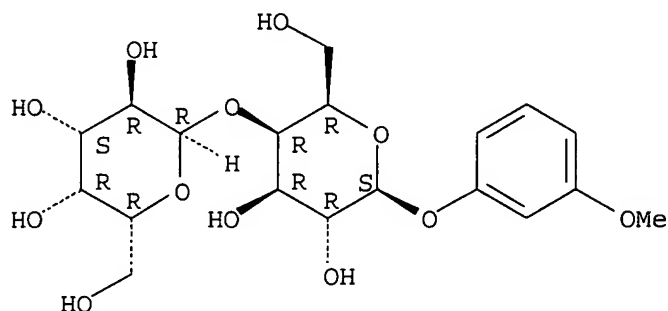
Absolute stereochemistry.



RN 850495-18-0 CAPLUS

CN β-D-Galactopyranoside, 3-methoxyphenyl 4-O-α-D-galactopyranosyl-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:1070530 CAPLUS

DOCUMENT NUMBER: 142:226354

TITLE: Local Environment and Property of Water inside the Hollow Cylinder of a Lipid **Nanotube**

AUTHOR(S): Yui, Hiroharu; Guo, Yanli; Koyama, Kana; Sawada, Tsuguo; John, George; Yang, Bo; Masuda, Mitsutoshi; Shimizu, Toshimi

CORPORATE SOURCE: CREST, Japan Science and Technology Agency, Nanoarchitectonics Research Center, National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki, 305-8562, Japan

SOURCE: Langmuir (2005), 21(2), 721-727

CODEN: LANGD5; ISSN: 0743-7463

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We investigated the local environment of water confined inside the hollow cylinder of lipid **nanotubes** (LNTs) by time-resolved fluorescent measurements and attenuated-total-reflectance IR (ATR-IR) spectroscopy. The LNT was obtained by self-assembly of cardanyl glucosides in water at room temperature and had an open-ended cylindrical **nanospace** with a diameter of 10-15 nm, a length of 10-100 μm, and hydrophilic inner and outer surfaces. We introduced a fluorescent probe of 8-anilinonaphthalene-1-sulfonate into the confined water and observed an extremely slow dynamic Stokes shift with a correlation time of 1.26 ns, which was 2-3 orders of magnitude longer than that of bulk-phase water. From the peak shift of the fluorescent spectrum, the local solvent polarity (ET(30)) of the

confined water was estimated as 50 kcal/mol, which is 20% lower than that in bulk water. ATR-IR measurements showed that the hydrogen-bond network of water inside the LNT was more developed than that in bulk water at room temperature, which is in contrast to the water in other self-assembled confined geometries, such as Aerosol-OT (AOT) reversed micelles.

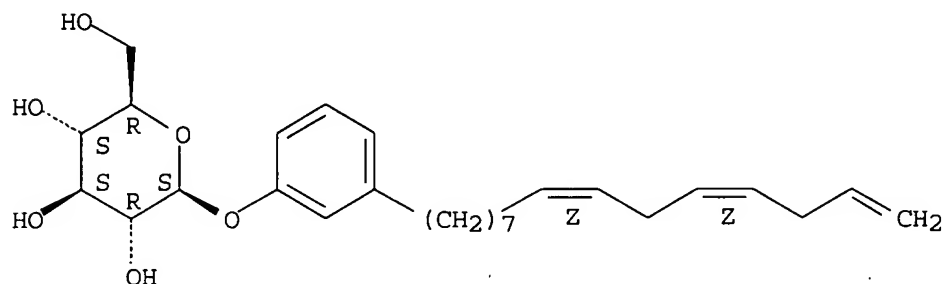
IT 354579-71-8 354579-72-9 354579-73-0  
354579-74-1

RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)  
(dynamics, polarity, hydrogen-bond of water inside hollow cylinder of lipid nanotube)

RN 354579-71-8 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11,14-pentadecatrienylphenyl (9CI)  
(CA INDEX NAME)

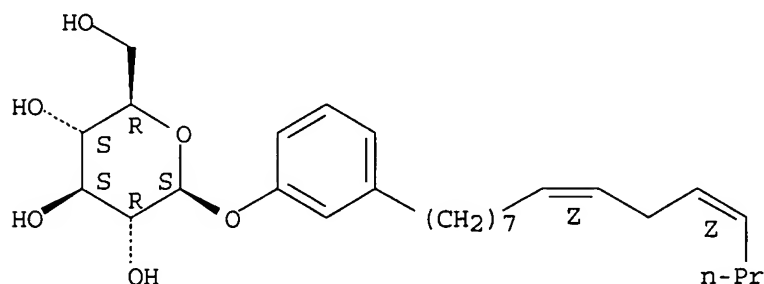
Absolute stereochemistry.  
Double bond geometry as shown.



RN 354579-72-9 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11-pentadecadienylphenyl (9CI) (CA INDEX NAME)

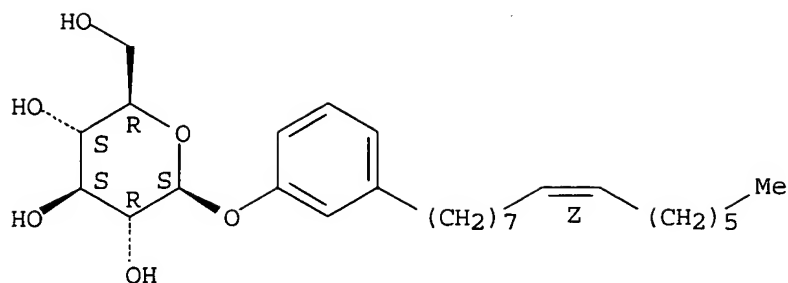
Absolute stereochemistry.  
Double bond geometry as shown.



RN 354579-73-0 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z)-8-pentadecenylphenyl (9CI) (CA INDEX NAME)

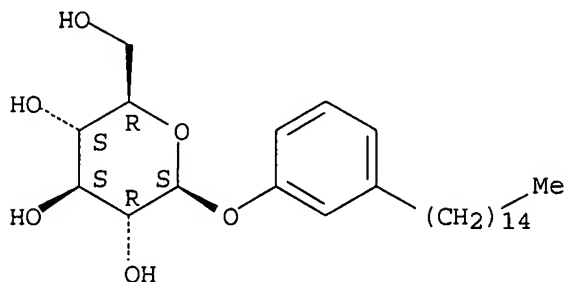
Absolute stereochemistry.  
Double bond geometry as shown.



RN 354579-74-1 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-pentadecylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:230605 CAPLUS

DOCUMENT NUMBER: 141:29185

TITLE: Molecule-up fabrication and manipulation of lipid **nanotubes**

AUTHOR(S): Shimizu, Toshimi; John, George; Fukagawa, Akihiro; Ito, Kohzo; Frusawa, Hiroshi

CORPORATE SOURCE: Nanoarchitectonics Research Center (NARC) National Institute of Advanced Industrial Science and Technology (AIST), CREST, Japan Science and Technology Corporation (JST), Tsukuba, 305-8565, Japan

SOURCE: International Journal of Nanoscience (2002), 1(5 & 6), 465-469

CODEN: IJNNAJ; ISSN: 0219-581X

PUBLISHER: World Scientific Publishing Co. Pte. Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Self-assembling behavior of both a cardanol-appended glycolipid mixture and the fractionated 4 components was examined in aqueous solns. The cardanyl glucoside mixture differing in the degree of unsatn. in the hydrophobic chain was found to self-assemble in H<sub>2</sub>O to form open-ended **nanotube** structures with 10-15 nm inner diams. The pure saturated homolog produced twisted helical ribbons through self-assembly, whereas the monoene derivative gave tubular structures. The rational control of helical and tubular morphologies was achieved by a combinatorial approach through the binary self-assembly of the saturated and monoene derivs. The flexural rigidity of a single lipid **nanotube** was 1st evaluated using optical tweezers manipulation and then compared with that of natural microtubules.

IT 354579-71-8 354579-73-0 354579-74-1  
582333-49-1

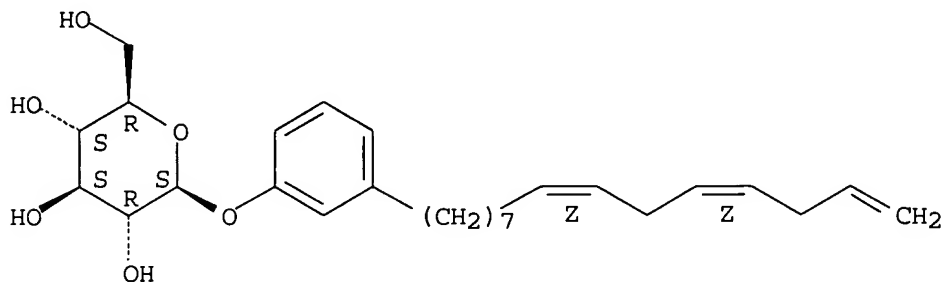


RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP  
(Physical process); PROC (Process)  
(mol.-up fabrication and manipulation of lipid **nanotubes**)

RN 354579-71-8 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11,14-pentadecatrienylphenyl (9CI)  
(CA INDEX NAME)

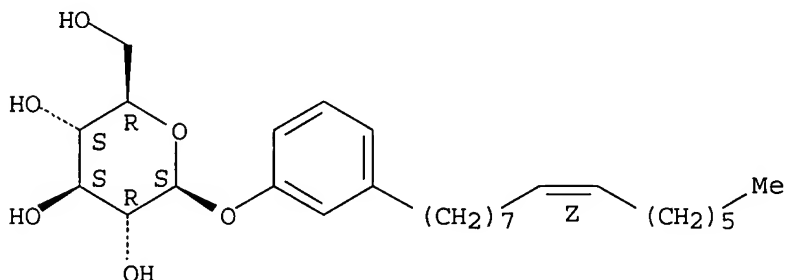
Absolute stereochemistry.  
Double bond geometry as shown.



RN 354579-73-0 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z)-8-pentadecenylphenyl (9CI) (CA INDEX  
NAME)

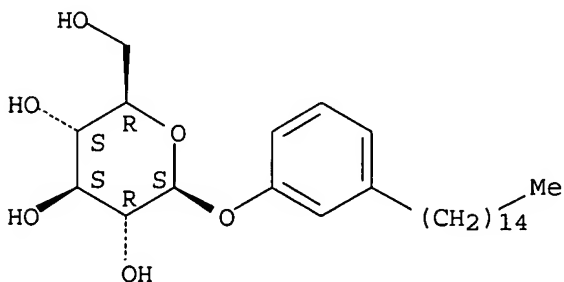
Absolute stereochemistry.  
Double bond geometry as shown.



RN 354579-74-1 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-pentadecylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

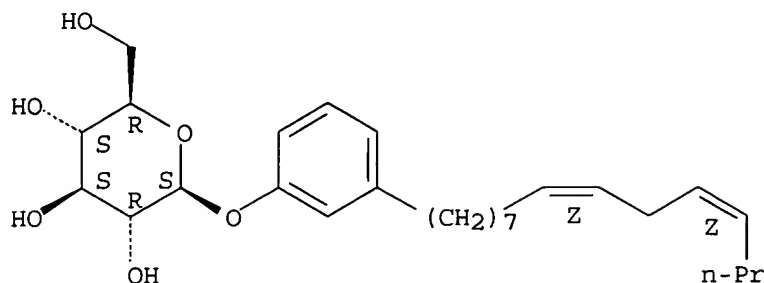


RN 582333-49-1 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11-pentadecadienylphenyl, hydrate  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



● x H<sub>2</sub>O

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:253935 CAPLUS

DOCUMENT NUMBER: 139:193810

TITLE: Elucidation of substrate binding interactions in a membrane transport protein by mass spectrometry

AUTHOR(S): Weinglass, Adam B.; Whitelegge, Julian P.; Hu, Yonglin; Verner, Gillian E.; Faull, Kym F.; Kaback, H. Ronald

CORPORATE SOURCE: Departments of Physiology and Microbiology and Molecular Genetics, Molecular Biology Institute, Howard Hughes Medical Institute, Los Angeles, CA, 90095-1662, USA

SOURCE: EMBO Journal (2003), 22(7), 1467-1477

CODEN: EMJODG; ISSN: 0261-4189

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Integration of biochem. and biophys. data on the lactose permease of *Escherichia coli* has culminated in a mol. model that predicts substrate-protein proximities which include interaction of a hydroxyl group in the galactopyranosyl ring with Glu269. In order to test this hypothesis, we studied covalent modification of carboxyl groups with carbodiimides using electrospray ionization mass spectrometry (ESI-MS) and demonstrate that substrate protects the permease against carbodiimide reactivity. Further more, a significant proportion of the decrease in carbodiimide reactivity occurs specifically in a **nanopeptide** containing Glu269. In contrast, carbodiimide reactivity of mutant Glu269→Asp that exhibits lower affinity is unaffected by substrate. By monitoring the ability of different substrate analogs to protect against carbodiimide modification of Glu269, it is suggested that the C-3 OH group of the galactopyranosyl ring may play an important role in specificity, possibly by H-bonding with Glu269. The approach demonstrates that mass spectrometry can provide a powerful means of analyzing ligand interactions with integral membrane proteins.

IT 52571-71-8

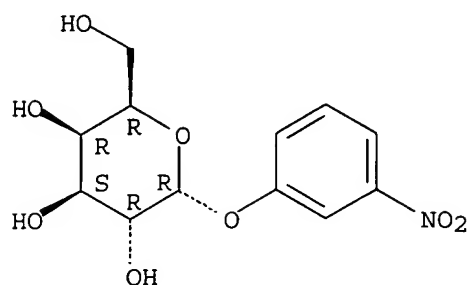
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(elucidation of substrate binding interactions in lactose permease of *Escherichia coli* by mass spectrometry and carbodiimide reactivity of Glu-269)

RN 52571-71-8 CAPLUS

CN α-D-Galactopyranoside, 3-nitrophenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:961016 CAPLUS

DOCUMENT NUMBER: 138:321443

TITLE: Morphological control of helical solid bilayers in high-axial-ratio **nanotubes** through binary self-assembly

AUTHOR(S): John, George; Jung, Jong Hwa; Minamikawa, Hiroyuki; Yoshida, Kaname; Shimizu, Toshimi

CORPORATE SOURCE: CREST, Japan Science and Technology Corporation (JST) NARC, AIST, Tsukuba, 305-8562, Japan

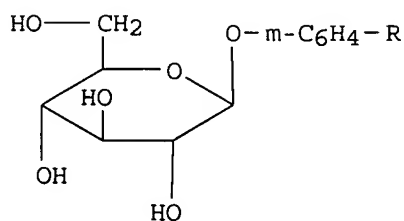
SOURCE: Chemistry--A European Journal (2002), 8(23), 5494-5500 CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Mixed mol. species of cardanyl glucoside (I; R = (CH<sub>2</sub>)<sub>14</sub>CH<sub>3</sub>, (CH<sub>2</sub>)<sub>7</sub>CH:CH(CH<sub>2</sub>)<sub>5</sub>CH<sub>3</sub>, (CH<sub>2</sub>)<sub>7</sub>(CH:CHCH<sub>2</sub>)<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, (CH<sub>2</sub>)<sub>7</sub>(CH:CHCH<sub>2</sub>)<sub>2</sub>CH:CH<sub>2</sub>) derived from renewable resources provide **nanotubes** upon self-assembly in water, while the saturated homolog generated a twisted fibrous morphol. The cardanyl glucoside mixture was fractionated into four individual components in order to study their contribution to the **nanotube** formation. The rational control of self-assembled helical morphologies was achieved by binary self-assembling of the saturated and monoene derivs. This method can generate a diversity of self-assembled high-axial-ratio **nanotubes** (HARNs), ranging from twisted ribbons and helical ribbons to **nanotubes**.

IT 354579-71-8 354579-72-9 354579-73-0

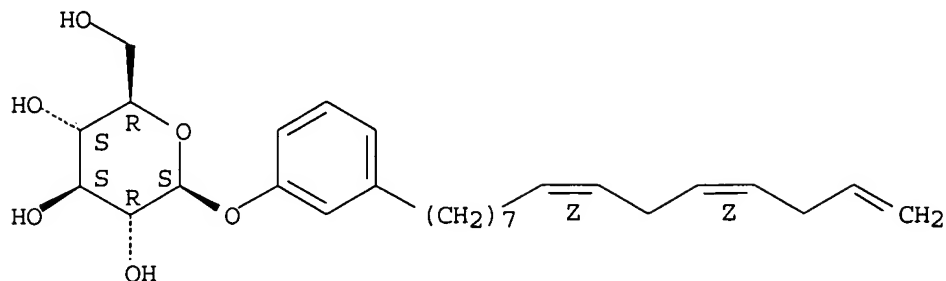
354579-74-1 514210-85-6

RL: PRP (Properties)

(binary aqueous self-assembly of cardanyl glucosides to form high-axial-ratio **nanotubes**)

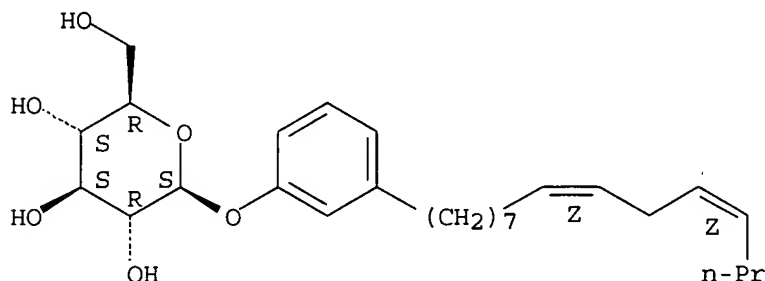
RN 354579-71-8 CAPLUS  
CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11,14-pentadecatrienylphenyl (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



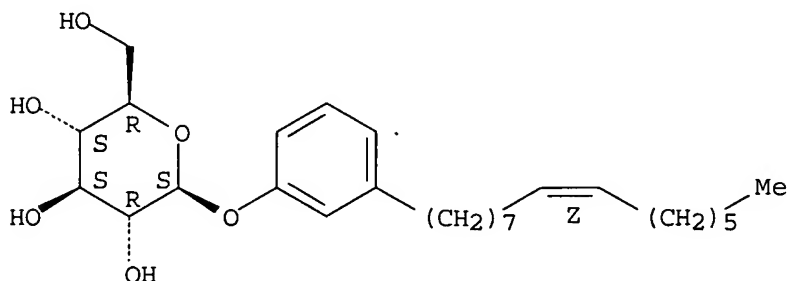
RN 354579-72-9 CAPLUS  
CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11-pentadecadienylphenyl (9CI) (CA  
INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



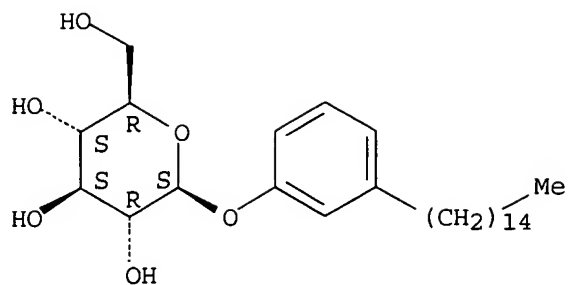
RN 354579-73-0 CAPLUS  
CN  $\beta$ -D-Glucopyranoside, 3-(8Z)-8-pentadecenylphenyl (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



RN 354579-74-1 CAPLUS  
CN  $\beta$ -D-Glucopyranoside, 3-pentadecylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 514210-85-6 CAPLUS

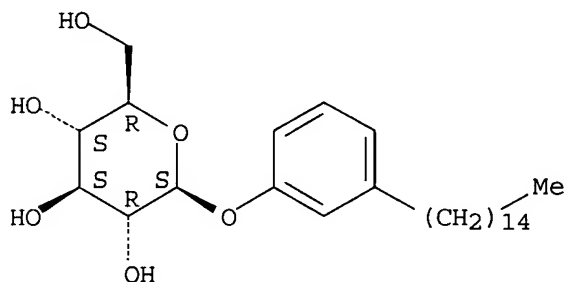
CN β-D-Glucopyranoside, 3-(8Z)-8-pentadecenylphenyl, compd. with  
3-pentadecylphenyl β-D-glucopyranoside (9CI) (CA INDEX NAME)

CM 1

CRN 354579-74-1

CMF C27 H46 O6

Absolute stereochemistry.

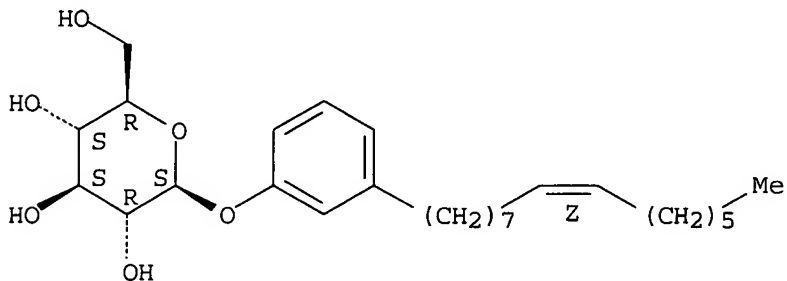


CM 2

CRN 354579-73-0

CMF C27 H44 O6

Absolute stereochemistry.  
Double bond geometry as shown.



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

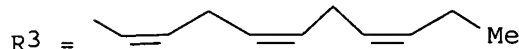
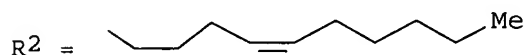
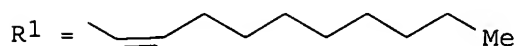
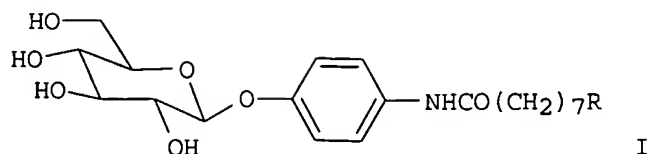
ACCESSION NUMBER: 2002:610824 CAPLUS

DOCUMENT NUMBER: 137:240035

TITLE: Self-Assembling Structures of Long-Chain Phenyl

# Glucoside Influenced by the Introduction of Double Bonds

AUTHOR(S): Jung, Jong Hwa; John, George; Yoshida, Kaname; Shimizu, Toshimi  
 CORPORATE SOURCE: Nanoarchitectonics Research Center, CREST, Japan Science and Technology Corporation, Ibaraki, 305-8562, Japan  
 SOURCE: Journal of the American Chemical Society (2002), 124(36), 10674-10675  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB Four long-chain Ph glucoside amphiphiles, I [R = (CH<sub>2</sub>)<sub>10</sub>Me, R<sub>1</sub>-R<sub>3</sub>], possessing a saturated or unsatd. long alkyl chain group as the self-assembling unit of a highly organized mol. architecture were synthesized. Their self-assembling properties were investigated by EF-TEM, SEM, CD, FT-IR, and XRD. Compound I (R = R<sub>1</sub>) possessing one double bond in the lipophilic portion showed twisted helical fibers, which formed a bilayered structure with a 3.59 nm period, while compound I (R = R<sub>2</sub>) showed the helical ribbons and left-handed **nanotubular** structures with 150-200 nm inner diams. and ca. 20 nm of wall. Very interestingly, compound I (R = R<sub>3</sub>) possessing three double bonds showed a **nanotubular** structure with ca. 70 nm of inner diameter through a helical ribbon, which formed a loose bilayered structure with 4.62 nm. These results indicate that self-assembling properties strongly depend on the number of cis double bonds.

IT 459167-17-0 459167-19-2 459167-20-5  
 459167-22-7

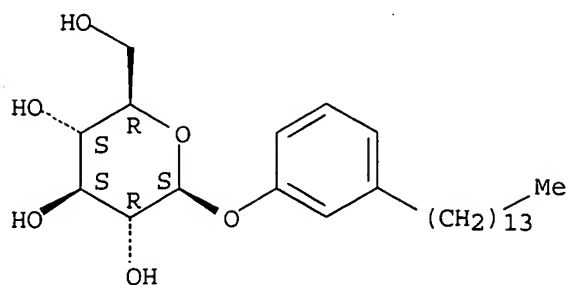
RL: PRP (Properties)

(self-assembling structures of long-chain Ph glucoside influenced by the introduction of double bonds)

RN 459167-17-0 CAPLUS

CN β-D-Glucopyranoside, 3-tetradecylphenyl (9CI) (CA INDEX NAME)

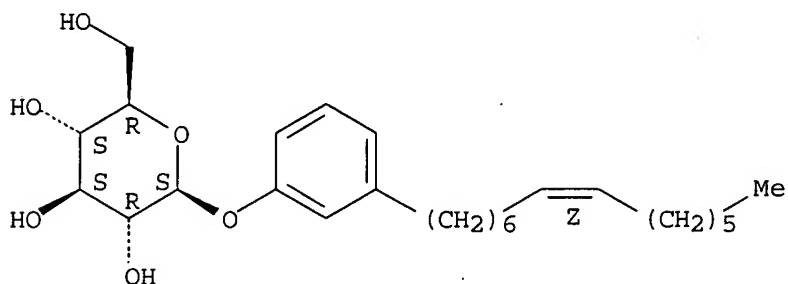
Absolute stereochemistry.



RN 459167-19-2 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(7Z)-7-tetradecenylphenyl (9CI) (CA INDEX NAME)

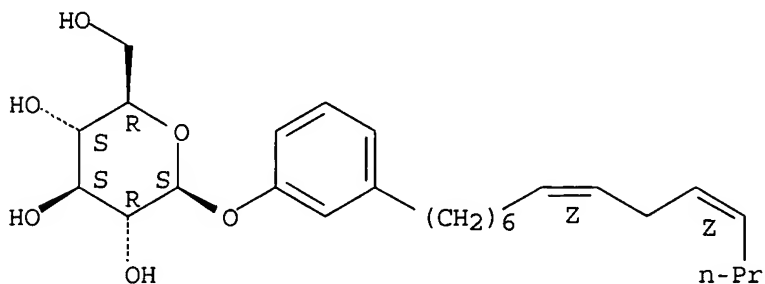
Absolute stereochemistry.  
Double bond geometry as shown.



RN 459167-20-5 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(7Z,10Z)-7,10-tetradecadienylphenyl (9CI) (CA INDEX NAME)

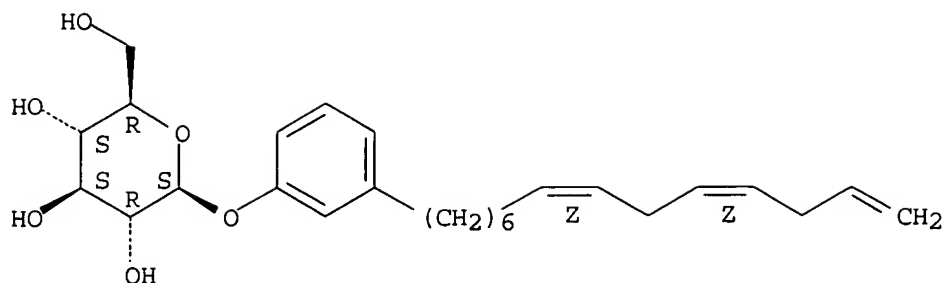
Absolute stereochemistry.  
Double bond geometry as shown.



RN 459167-22-7 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(7Z,10Z)-7,10,13-tetradecatrienylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:595648 CAPLUS

DOCUMENT NUMBER: 137:279395

TITLE: Regioselective Silylation of Sugars through Palladium Nanoparticle-Catalyzed Silane Alcoholysis

AUTHOR(S): Chung, Mee-Kyung; Orlova, Galina; Goddard, John D.; Schlaf, Marcel; Harris, Robert; Beveridge, Terrance J.; White, Gisele; Hallett, F. Ross

CORPORATE SOURCE: Guelph-Waterloo Centre for Graduate Work in Chemistry, Department of Chemistry and Biochemistry, University of Guelph, Guelph, ON, N1G 2W1, Can.

SOURCE: Journal of the American Chemical Society (2002), 124(35), 10508-10518

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:279395

AB Palladium(0)-catalyzed silane alcoholysis was applied to sugars for the first time using tert-butyldimethylsilane (TBDMS-H) and  $\text{Ph}_3\text{SiH}$  as the silanes. The catalyst is a colloidal solution of  $\text{Pd}(0)$  generated in situ from  $\text{PdX}_2$  ( $\text{X} = \text{Cl}^-$ ,  $\text{OAc}^-$ ) and TBDMS-H in  $N,N$ -dimethylacetamide. The colloid has been characterized by dynamic light scattering and transmission electron microscopy and consists of catalytically highly active **nanoparticles** of approx. 2 nm diameter. The silane alcoholysis reaction is an effective method for the regioselective silylation of Me and Ph glycosides and generates hydrogen gas as the only side product. For many of the sugar substrates investigated, the distribution of regioisomers obtained is complementary to that of the traditional  $\text{R}_3\text{SiCl}$ /base (base = pyridine, imidazole) methodol. and gives convenient access to the 3,6- rather than the 2,6-silylated pyranosides, obtained as the main product by the silyl chloride method. The method also allows a selective axial silylation of levoglucosan and 1,3,5-O-methylidene-myo-inositol. In an attempt to rationalize the observed regioselectivities, ab initio predictions ( $\text{HF}/3\text{-}21\text{G}^*$ ) have been made on the relative energies of some of the silylated products. They suggest that the observed regioselectivities do not reflect a kinetic vs thermodyn. product distribution but are induced by the silylation agent employed. Models for the possible origin of the observed regioselectivity in both silylation methods (silane- and silyl chloride-based) are discussed.

IT 1464-44-4, Phenyl  $\beta$ -D-glucopyranoside

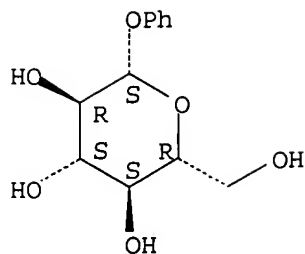
RL: RCT (Reactant); RACT (Reactant or reagent)  
(regioselective silylation of glycosides through palladium nanoparticle-catalyzed silane alcoholysis)

RN 1464-44-4 CAPLUS

CN  $\beta$ -D-Glucopyranoside, phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.





REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:183836 CAPLUS

DOCUMENT NUMBER: 136:233460

TITLE: Hollow fibrous glycolipid **nanotube** and method for producing the same

INVENTOR(S): Shimizu, Toshimi; John, Geroige; Masuda, Mitsutoshi

PATENT ASSIGNEE(S): National Institute of Advanced Industrial Science and Technology, Japan

SOURCE: Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1186688	A1	20020313	EP 2001-307413	20010831
EP 1186688	B1	20050615		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002080489	A2	20020319	JP 2000-271192	20000907
JP 3598367	B2	20041208		
US 2002051881	A1	20020502	US 2001-939841	20010828
US 6632497	B2	20031014		

PRIORITY APPLN. INFO.: JP 2000-271192 A 20000907

AB A novel hollow fibrous organic **nanotube** can be produced by a simple procedure from a readily available and inexpensive natural material, which is regenerable and has a wide range of application. The hollow fibrous organic **nanotube** having an inner pore diameter of 10 to 20 nm and an outer diameter of 40 to 80 nm comprises an O-glycoside type glycolipid having an aldose residue as the glycosyl group and a group represented by m-OC<sub>6</sub>H<sub>4</sub>R, wherein R is an unsatd. straight-chain hydrocarbon group having 12 to 18 carbon atoms, as the aglycon. The **nanotube** structure can be obtained by gradually cooling a saturated aqueous solution of the starting

material to room temperature and the solution is kept standing for days or for weeks to cause spontaneous formation of hollow tubes as ppts. A **nanotube** was prepared from 1-(O-P-D-Glucopyranoside) cardanol.

IT 354579-74-1P

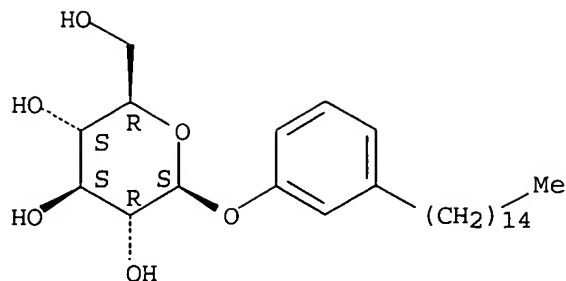
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(**nanotube**; hollow fibrous glycolipid **nanotube** and method for producing the same)

RN 354579-74-1 CAPLUS

CN β-D-Glucopyranoside, 3-pentadecylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:400616 CAPLUS

DOCUMENT NUMBER: 135:166620

TITLE: **Nanotube** formation from renewable resources via coiled **nanofibers**

AUTHOR(S): John, George; Masuda, Mitsutoshi; Okada, Yuji; Yase, Kiyoshi; Shimizu, Toshimi

CORPORATE SOURCE: National Institute of Materials and Chemical Research, Tsukuba, 305-8565, Japan

SOURCE: Advanced Materials (Weinheim, Germany) (2001), 13(10), 715-718

CODEN: ADVMEW; ISSN: 0935-9648

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:166620

AB Glycosylation of cardanol with penta-O-acetyl- $\beta$ -D-glucopyranose followed by deprotection afforded a glycolipid mixture that self-assembled into **nanofibers** in water and acted as gelation agents. The helical morphol. of the fibers could be controlled by altering the degree of side-chain unsatn. Coiled **nanofibers** self-assembled into **nanotubes** that exhibited a phase-transition at 46° to vesicles.

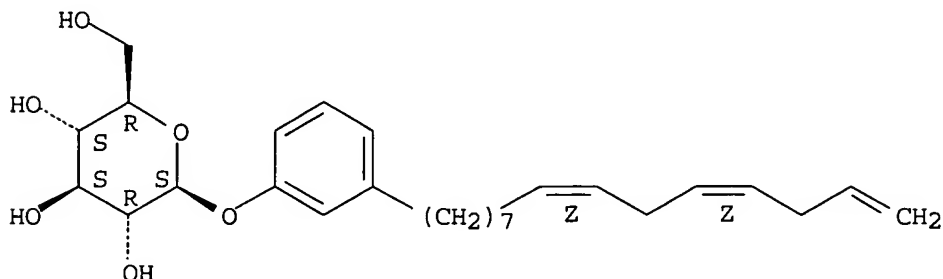
IT 354579-71-8P 354579-72-9P 354579-73-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (glycolipid mixture component; **nanotube** formation from renewable resources via coiled **nanofibers**)

RN 354579-71-8 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11,14-pentadecatrienylphenyl (9CI) (CA INDEX NAME)

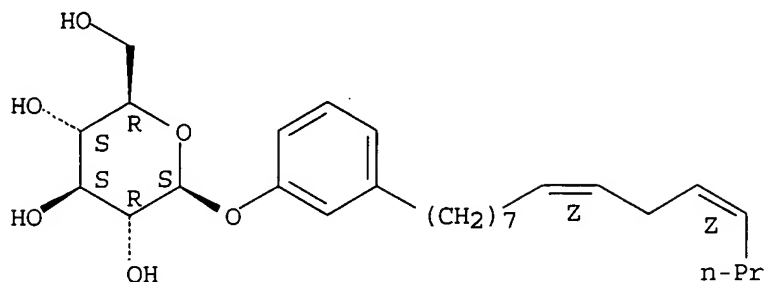
Absolute stereochemistry.  
Double bond geometry as shown.



RN 354579-72-9 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z,11Z)-8,11-pentadecadienylphenyl (9CI) (CA INDEX NAME)

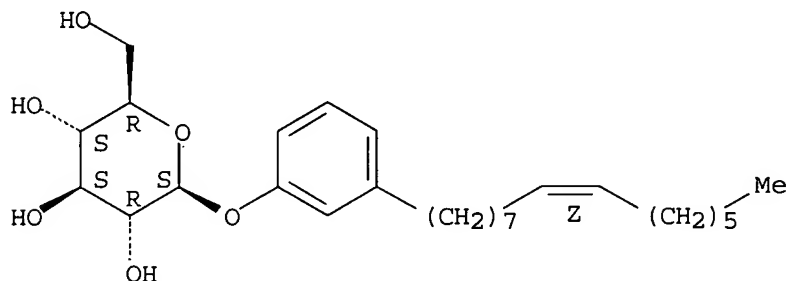
Absolute stereochemistry.  
Double bond geometry as shown.



RN 354579-73-0 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(8Z)-8-pentadecenylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



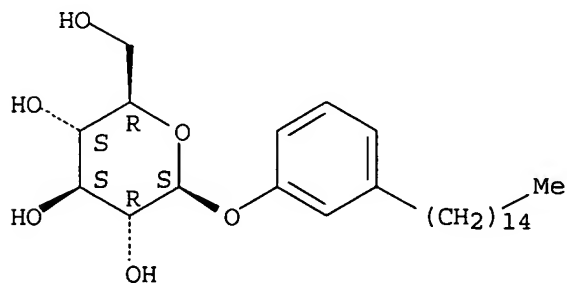
IT 354579-74-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(mixture component and sole glycolipid; **nanotube** formation from  
renewable resources via coiled **nanofibers**)

RN 354579-74-1 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-pentadecylphenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

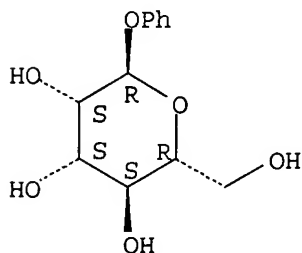


REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2001:94695 CAPLUS

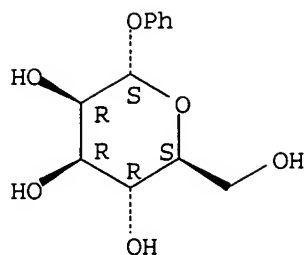
DOCUMENT NUMBER: 134:281427  
 TITLE: The synthesis, characterization and molecular recognition properties of imprinted microgels  
 AUTHOR(S): Biffis, Andrea; Graham, Neil B.; Siedlaczek, Georg; Stalberg, Stefanie; Wulff, Gunter  
 CORPORATE SOURCE: Institut fur Organische Chemie und Makromolekulare Chemie, Heinrich-Heine-Universitat Dusseldorf, Dusseldorf, D-40225, Germany  
 SOURCE: Macromolecular Chemistry and Physics (2001), 202(1), 163-171  
 CODEN: MCHPES; ISSN: 1022-1352  
 PUBLISHER: Wiley-VCH Verlag GmbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Mol. imprinting, an established technique for the synthesis of insol. crosslinked polymers with specific cavities for selective mol. recognition and catalysis, has been applied to highly crosslinked polymer **nanoparticles** (microgels) able to build stable solns. in appropriate solvents. Imprinted microgels with a nominal crosslinking degree above 50 wt% could be prepared by solution polymerization in high dilution They were characterized by GPC, viscometry and membrane osmometry, and were found to be highly crosslinked macromols. with a mol. weight comparable to the one of proteins. Mol. recognition expts. clearly pointed out the presence of functionalized cavities within the microgels that were able to recognize and to selectively bind sugar mols. The experiment can be carried out in homogeneous solution, after which the microgels are conveniently separated by ultracentrifugation. Although the obtained selectivities are still low compared to the results achieved with insol. crosslinked polymers, the success of this approach represents an important step towards the development of what might be properly described as "artificial enzymes".  
 IT 21797-50-2 99530-31-1  
 RL: ANT (Analyte); ANST (Analytical study)  
 (synthesis, characterization and mol. recognition properties of imprinted microgels)  
 RN 21797-50-2 CAPLUS  
 CN  $\alpha$ -D-Mannopyranoside, phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 99530-31-1 CAPLUS  
 CN  $\alpha$ -L-Mannopyranoside, phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:174955 CAPLUS

DOCUMENT NUMBER: 124:235183

TITLE: **Nanoscale** morphology of lignins and their chemical transformation products

AUTHOR(S): Shevchenko, Sergey M.; Bailey, George W.; Yu, Y. Shane; Akim, Leonid G.

CORPORATE SOURCE: U.S. Environmental Protection Agency, Athens, GA, 30605, USA

SOURCE: Tappi Journal (1996), 79(3), 227-37

CODEN: TAJODT; ISSN: 0734-1415

PUBLISHER: TAPPI Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Reductive splitting expts. demonstrated a high degree of preservation of typical lignin (I) structures in humic substances that are the major products of I environmental biodegrdn. Atomic force microscopy and scanning tunneling microscopy provided a comparative anal. of the morphol. character of I, I model compds., and humic substances sorbed on organic and mineral surfaces. Chemical and morphol. similarity between I and humic substances suggests the use of waste I as soil improvement agents.

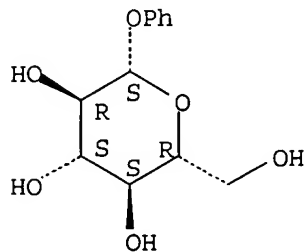
IT **1464-44-4**, Phenyl- $\beta$ -D-glucopyranoside

RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)  
(**nanoscale** morphol. of humic substances and lignins and their use as soil amendments)

RN 1464-44-4 CAPLUS

CN  $\beta$ -D-Glucopyranoside, phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L16 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:362656 CAPLUS

DOCUMENT NUMBER: 122:128066

TITLE: Method and devices for delivery of substrate for the detection of enzyme-linked, membrane-based binding assays

INVENTOR(S): Bush, Christopher N.; Audette, Charlene A.; Harvey,

Michael A.  
 PATENT ASSIGNEE(S): Schleicher and Schuell, Inc., USA  
 SOURCE: U.S., 8 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5382516	A	19950117	US 1992-945097	19920915
PRIORITY APPLN. INFO.:			US 1992-945097	19920915

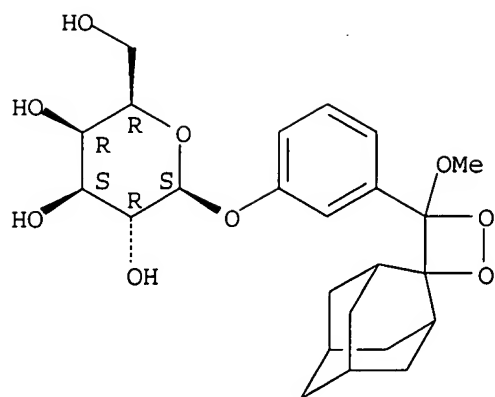
AB The invention provides a method for supplying an enzyme substrate to a membrane-based, enzyme-linked reaction, comprising providing an open pore, high liquid retention capacity material impregnated with a predetd. amount of a substrate for the enzyme; and contacting the material with a membrane containing the enzyme-linked reaction under conditions which permit diffusion of the enzyme substrate to sites on the membrane containing the enzyme-linked reaction. The invention further provides devices for membrane-based enzyme-linked reactions comprising a porous material impregnated with a predetd. amount of a substrate for the enzyme, wherein the porous material is paper, glass fiber paper, stainless steel mesh, woven and nonwoven nylon, polyester, polyethylene, polypropylene, or fluorocarbon polymers having a porosity ranging from about 5 to 5000  $\mu\text{m}$ ; and a microporous membrane of cellulose or a cellulose derivative, nylon, polysulfone, polypropylene, PTFE, or PVDF having a porosity ranging from about 0.05 to about 12  $\mu\text{m}$ . Diagrams of two-layered test devices are included. To determine the efficacy of the present invention, an immunoassay was performed on two nylon membranes. Three **nanograms** of a monoclonal anti- $\beta$ -galactosidase antibody in 200  $\mu\text{L}$  of Tris-buffered saline was applied to two 0.45  $\mu\text{m}$  nylon membranes. Unoccupied sites on the membrane were then blocked with 1% casein solution and the membrane subjected to a solution containing 20 ng/mL of an alkaline phosphatase conjugated goat anti-mouse Ig. Following washing, one of the membranes was dipped through 2 mL of Lumiphos 530 and the excess substrate solution allowed to drain off. The other was placed on the surface of a nonwoven polyester material containing 0.7 mL of Lumiphos 530. At various times following substrate application, the membranes were exposed to x-ray film for 10 min; The membranes were then removed from the film, the film developed, and the developed film cut to size and the absorbance of the dots at 630 nm measured. The dots from the membrane placed on top of the nonwoven material containing the luminescent substrate had significantly greater absorbance than those obtained from the membrane dipped in the same substrate.

IT **123954-01-8**, Lumigen GPD  
 RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (methods and devices for delivery of substrate for the detection of enzyme-linked, membrane-based binding assays)

RN 123954-01-8 CAPLUS

CN  $\beta$ -D-Galactopyranoside, 3-(4-methoxyspiro[1,2-dioxetane-3,2'-tricyclo[3.3.1.1<sup>3,7</sup>]decan]-4-yl)phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L16 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1980:36525 CAPLUS  
 DOCUMENT NUMBER: 92:36525  
 TITLE: Determination of  $\beta$ -glycosidases,  
 $\beta$ -glucuronidase, and alkaline phosphatase by an  
 enzyme electrode sensitive to phenol  
 AUTHOR(S): Macholan, Lumir  
 CORPORATE SOURCE: Dep. Biochem., Purkyne Univ., Brno, 611 37, Czech.  
 SOURCE: Collection of Czechoslovak Chemical Communications  
 (1979), 44(10), 3033-40  
 CODEN: CCCCAK; ISSN: 0366-547X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB A rapid and relatively simple procedure is described for kinetic measurement of low activities of enzymes hydrolyzing PhOH conjugates. PhOH generated by the enzyme reactions in the pH-optimum range 5.0-9.5 was continuously monitored by an O membrane electrode of the Clark type. The surface of the electrode exposed to the solution was coated with a layer of chemical insolubilized polyphenol oxidase. The current response of the electrode, indicating the uptake of O, diffusing from the solution together with PhOH into the enzyme membrane, was proportional to the enzyme concentration

(according to the kind of hydrolase in the range from 0.2 to  $\geq 2 \cdot 10^{-9}$  **nanocat**). The dependences of the initial rate of enzyme reaction on enzyme and substrate concentration and the  $K_m$ - and  $V_{max}$ -values at optimal pH were measured with alkaline phosphatase, emulsin ( $\beta$ -glucosidase), and  $\beta$ -glucuronidase. The kinetic measurements showed that sweet almond emulsin contains 2 enzymes differing in their affinity toward Ph  $\beta$ -D-galactopyranoside.

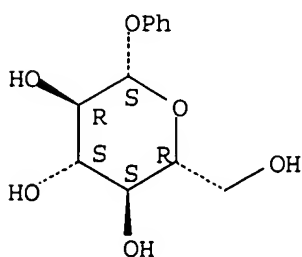
IT 1464-44-4 2818-58-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with emulsin, kinetics of)

RN 1464-44-4 CAPLUS

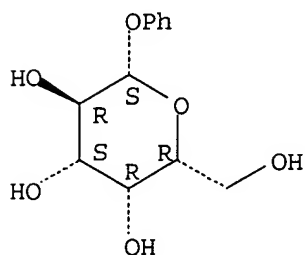
CN  $\beta$ -D-Glucopyranoside, phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 2818-58-8 CAPLUS  
CN  $\beta$ -D-Galactopyranoside, phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L16 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1946:10050 CAPLUS  
DOCUMENT NUMBER: 40:10050  
ORIGINAL REFERENCE NO.: 40:1847i,1848a-b  
TITLE: Synthesis of N-derivatives of anabasine  
AUTHOR(S): Zhdanovich, E. S.; Men'shikov, G. P.  
CORPORATE SOURCE: All-Union Inst. Sci. Research, Moscow  
SOURCE: Zhurnal Obshchei Khimii (1945), 15, 116-19  
CODEN: ZOKHA4; ISSN: 0044-460X  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Anabasine (6 g.), HCO<sub>2</sub>H (6 g.), and EtCHO, iso-PrCHO, PrCHO (6 g.), iso-BuCHO, BzH (7 g.), PhCH: CHCHO (9 g.), and furfural (10 g.), resp., were refluxed on a boiling-water bath for 2 hrs., treated with 10% HCl (50 ml.), extracted with ether, treated with 25% NaNO<sub>2</sub> at room temperature for several hrs., then with 10% NaOH, extracted with ether, and fractionated in vacuo. The following N-alkylanabasines were obtained: Pr, b8 133-4°, [ $\alpha$ ]D -92.5° (picrate, m. 179-81°); Bu b6 132-3°, [ $\alpha$ ]D -99.5° (picrate, m. 161-3°); iso-Bu b8 136-7°, [ $\alpha$ ]D -137.5° (picrate, m. 187-8.5°); iso-Am, b8 149-51°, [ $\alpha$ ]D -104.5° (picrate, m. 187.5-8.5°); benzyl, b5 175-6°, m. 66-7°, [ $\alpha$ ]D -39.3° (picrate, m. 191-3°); 3-phenylallyl, b5 196-8°, m. 85.5-7°, [ $\alpha$ ]D -93.2° (picrate, m. 203-4°); furfuryl, b6 160-2°, m. 65.5-7°, [ $\alpha$ ]D -127° (picrate, m. 185-6.5°).

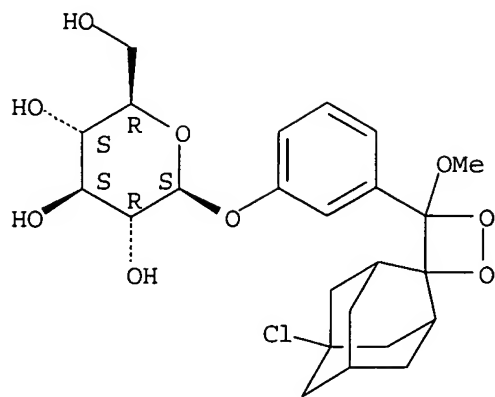
IT 201037-11-8, Glucon  
(preparation of)

RN 201037-11-8 CAPLUS

CN  $\beta$ -D-Glucopyranoside, 3-(5'-chloro-4-methoxyspiro[1,2-dioxetane-3,2'-tricyclo[3.3.1.1<sup>3,7</sup>]decan]-4-yl)phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.





L16 ANSWER 16 OF 16 MEDLINE on STN  
 ACCESSION NUMBER: 2004215803 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 15113668  
 TITLE: Synthesis, self-assembly and characterization of a new glucoside-type hydrogel having a Schiff base on the aglycon.  
 AUTHOR: Bao Chunyan; Lu Ran; Jin Ming; Xue Pengchong; Tan Changhui; Zhao Yingying; Liu Guofa  
 CORPORATE SOURCE: College of Chemistry, Department of Organic Chemistry, Jilin University, 119 Jiefang Road, Changchun 130023, PR China.  
 SOURCE: Carbohydrate research, (2004 May 17) 339 (7) 1311-6. Journal code: 0043535. ISSN: 0008-6215.  
 PUB. COUNTRY: Netherlands  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200412  
 ENTRY DATE: Entered STN: 20040429  
 Last Updated on STN: 20041224  
 Entered Medline: 20041223  
 AB A new hydrogel based on a substituted phenyl glucoside with a Schiff base in the aglycon was synthesized, and the self-assembling characteristics was studied. FTIR spectra, UV-vis absorption spectra and X-ray diffraction (XRD) revealed that pi-pi interactions between the Schiff base moieties, hydrogen bonds, and the interdigitated interactions between hydrophobic chains had effects on the formation of the self-assembling hydrogel. Scanning electron microscopic (SEM) and transmission electron microscopic (TEM) observation showed that the three-dimensional hydrogel network was constructed from **nanotubes** with inner diameters of ca. 75 nm and wall of ca. 20 nm.

L2 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:230605 CAPLUS

DOCUMENT NUMBER: 141:29185

TITLE: Molecule-up fabrication and manipulation of lipid nanotubes

AUTHOR(S): Shimizu, Toshimi; John, George; Fukagawa, Akihiro; Ito, Kohzo; Frusawa, Hiroshi

CORPORATE SOURCE: Nanoarchitectonics Research Center (NARC) National Institute of Advanced Industrial Science and Technology (AIST), CREST, Japan Science and Technology Corporation (JST), Tsukuba, 305-8565, Japan

SOURCE: International Journal of Nanoscience (2002), 1(5 & 6), 465-469

CODEN: IJNNAJ; ISSN: 0219-581X

PUBLISHER: World Scientific Publishing Co. Pte. Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Self-assembling behavior of both a **cardanol**-appended glycolipid mixture and the fractionated 4 components was examined in aqueous solns. The cardanyl glucoside mixture differing in the degree of unsatn. in the hydrophobic chain was found to self-assemble in H<sub>2</sub>O to form open-ended **nanotube** structures with 10-15 nm inner diams. The pure saturated homolog produced twisted helical ribbons through self-assembly, whereas the monoene **deriv.** gave tubular structures. The rational control of helical and tubular morphologies was achieved by a combinatorial approach through the binary self-assembly of the saturated and monoene **derivs.** The flexural rigidity of a single lipid **nanotube** was 1st evaluated using optical tweezers manipulation and then compared with that of natural microtubules.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

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DOCUMENT NUMBER: 141:29185

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CORPORATE SOURCE: Nanoarchitectonics Research Center (NARC) National Institute of Advanced Industrial Science and Technology (AIST), CREST, Japan Science and Technology Corporation (JST), Tsukuba, 305-8565, Japan

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L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:501807 CAPLUS

DOCUMENT NUMBER: 133:139919

TITLE: Skin cosmetics containing cardol glycosides or cardanol glycosides

INVENTOR(S): Ikemoto, Takeshi; Nakatsugawa, Hiroko; Yamazaki, Shunsuke

PATENT ASSIGNEE(S): Kanebo, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

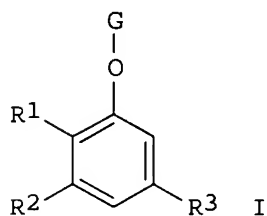
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000204030	A2	20000725	JP 1999-3909	19990111
PRIORITY APPLN. INFO.:			JP 1999-3909	19990111
OTHER SOURCE(S):	MARPAT 133:139919			

GI



AB Skin cosmetics contain cardol glycosides I (R1 = H, Me; R2 = OH; R3 = C15 linear (un)saturated hydrocarbyl; G = mono- or **oligosaccharide** residue] or **cardanol** glycosides I (R1, R3, G = same as above; R2 = OH). The cosmetics impart smoothness to the skin without causing skin irritation. A cream was formulated containing 3-hydroxy-5-(8,11,14-pentadecatrienyl)phenyl D-glucoside.

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:501807 CAPLUS

DOCUMENT NUMBER: 133:139919

TITLE: Skin cosmetics containing cardol glycosides or cardanol glycosides

INVENTOR(S): Ikemoto, Takeshi; Nakatsugawa, Hiroko; Yamazaki, Shunsuke

PATENT ASSIGNEE(S): Kanebo, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

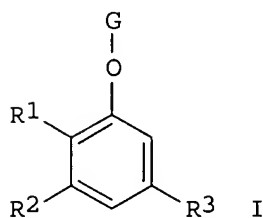
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FAMILY ACC. NUM. COUNT: 1

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000204030	A2	20000725	JP 1999-3909	19990111
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DOCUMENT TYPE: Patent

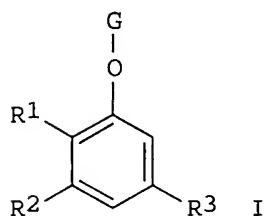
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

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PRIORITY APPLN. INFO.:			JP 1999-3909	19990111
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